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Some Effects of Changing the Definition of Stillbirth¹

H. E. NAUGLER²

IT has been an accepted fact for many years that stillbirths should be recorded as vital events but in Nova Scotia the data collected were probably not highly accurate nor used extensively until as recently as 1939. The statutes of the Province of Nova Scotia defined stillbirths merely as "children dead at birth". There was no specified period of gestation and thus no evidence that some physicians were not recording all products of conception, while others were recording only full-term foetuses that were dead at birth. It follows, therefore, that comparison of these early data with figures for later years can be made only with reservations. An amendment to the Vital Statistics Act in 1939 defined a still-born child as: "A child born after 28 weeks or 6½ months pregnancy and in which breathing does not occur after its complete birth". This was the first real attempt to set a pattern to standardize the data recorded. At this time the practice of registering stillbirths as both births and deaths was discontinued. A special stillbirth registration form was introduced in which the personal particulars were recorded as on a birth registration form, and the medical certificate of cause of stillbirth was incorporated.

Unfortunately, in Canada and particularly in Nova Scotia, there seems to have been very little application of the data gathered on stillbirths until quite recently.

Recent Progress in Nova Scotia

In 1952 a Vital Statistics Act, accepted as a model in Canada, was passed by the Legislature in Nova Scotia. This statute defined stillbirth as "The birth of a foetus, after at least 28 weeks pregnancy, which after complete separation from the mother does not show any sign of life".

¹Presented at the section of Vital and Health Statistics, 51st Annual Meeting, Canadian Public Health Association and Nova Scotia Branch, Halifax, May 31-June 2, 1960.

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Although, through co-operation with Dalhousie Medical School, every attempt has been made to keep medical students informed of such changes in definitions, it would seem that all members of the practising medical profession and hospitals have not kept up to date. Lack of knowledge in this respect was brought to light in 1958 when the Division of Child and Maternal Health of the provincial Department of Public Health attempted to gather data on infant deaths and stillbirths directly from hospital records. This revealed that some hospitals were using their own definitions of stillbirths. Obviously, with the differences noted for the small area of Nova Scotia, it is certain that there would be vast, perhaps inconceivable, differences in the data collected on a national and international basis.

The World Health Organization in 1950 recommended for adoption the definition of foetal death as "death prior to complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy". This move was made toward obtaining uniformity by elimination of such terms as "stillbirth", "abortion", and "miscarriage", all of which led to confusion.

Later in Canada the following definition was agreed upon by the Canadian Public Health Association, the Medical Advisory Committee to the Dominion Statistician, the Vital Statistics Council for Canada, and the Committee on Uniformity of Legislation in Canada: "Stillbirth means the complete expulsion or extraction from its mother, after at least '—' weeks of pregnancy, of a product of conception in which, after such expulsion or extraction, there is no breathing, beating of the heart, pulsation of the umbilical cord, or unmistakable movement of voluntary muscle". While the minimum gestation period was left to the discretion of the individual provinces, the recommended minimum was set at 20 weeks.

The province of Nova Scotia, realizing the urgent need for uniformity as well as a lower minimum gestation period, moved to have the recommended definition made legislation, incorporating the 20 weeks minimum gestation period. The matter was first explored carefully with the Halifax Medical Society in open meeting, the Executive of the Nova Scotia Medical Society, the Provincial Advisory Committee on Maternal and Child Health, and others. The result was that when in April of 1959 the Legislature of the Province made the definition statute law, a portion of those dealing with registration of these events were aware of the implications.

After the new definition came into effect, every effort was made to insure that hospital staffs and members of the medical profession were made conversant with it. During the latter part of the year the results began to show when 4.9% of all stillbirths recorded were under 28 weeks gestation. During the first four months of 1960, of all stillbirths recorded, 16% were under 28 weeks gestation. Of these 27% were in the 20-23 weeks gestation group and the remaining 73% were in the 24-27 weeks gestation group. Obviously, this substantial increase in the number of recorded events under a standard definition must bring about changes in various administration, health and other programs. Let us first examine the results of similar legislation elsewhere.

A report published by the National Office of Vital Statistics, Washington, D.C. in 1957 shows that at that time seven states of the U.S.A. and New York City

required registration of all products of conception regardless of gestation period. The remaining states required registration of dead fetuses of minimum gestation periods varying from 16 weeks to 20 weeks. Study of the resulting data gathered in those states without a minimum gestation period requirement shows that the number of stillbirths now recorded is much higher in the group 20-23 weeks gestation than the number recorded in that same group when the minimum gestation period was 20 weeks.

Our experience in Nova Scotia, since the lowering of the minimum gestation period in 1959 to 20 weeks, indicates an increase in the number of recordings in the 28-30 weeks gestation group. Our data are much too limited at this time, however, to evaluate.

New York City where the term "foetal deaths" is used rather than "stillbirths", and where "any product of conception is required to be recorded", registered 21,810 foetal deaths in 1957. Of these 1,653 or about 8.0% were in the group 20-27 weeks gestation, and 15,599 or about 72.0% were under 20 weeks gestation. On the basis of these data compiled by the City of New York a table has been compiled with application to Nova Scotia for 1957 (Table I).

TABLE I—ALL REPORTED TERMINATED PREGNANCIES; NEW YORK CITY 1957
WITH NOVA SCOTIA ESTIMATES

Type of Delivery	Number	Ratio per 1,000 reported pregnancies	†Nova Scotia Estimate 1957 based on New York Experience
All Deliveries	188,787	1,000.0	22,000
Live Births	166,977	884.5	19,500*
Foetal Deaths	21,810	115.5	2,500
Therapeutic abortions	336	1.8	
Illegal abortions	60	0.3	100
Ectopic pregnancies	576	3.0	
Spontaneous foetal deaths	20,838	110.4	2,400
Less than 13 weeks	10,679	56.6	1,200
13-19 weeks	4,920	26.1	600
20-27 weeks	1,653	8.8	200
28+ weeks	2,333	12.3	300
Gestation not stated	1,253	6.6	100

*Number registered to nearest hundred.

†All estimates rounded to nearest hundred.

The data on New York City were supplied by Dr. G. L. Erhardt, New York Department of Health. Dr. Erhardt, like most of us in the registration field, feels that there is underreporting to a "considerable extent" where stillbirths or foetal deaths are concerned. The estimates for Nova Scotia are almost certainly low, as is indicated by the fact that the estimated number of foetal deaths or stillbirths of 28+ weeks gestation is lower than the number of such events actually recorded.

The adoption of the definition of stillbirth, with the minimum gestation period reduced from 28 weeks to 20 weeks, will bring to light a much larger number of these events than in the past. Perhaps as much as 60% increase in the number of stillbirths recorded could be expected in Nova Scotia.

An Outbreak of *Tinea pedis* in a Public School

G. W. O. MOSS,¹ M.D., D.P.H.

RINGWORM of the foot is recognized as an ubiquitous infection, and in our experience, approximately twelve to fifteen clinically obvious cases may be encountered in any one large public school, equipped with swimming pool and gymnasium, during a school year. It is not usual for this condition to occur in epidemic proportions such as we encountered recently in a public school. Investigation of this episode led us to a unique common reservoir of infection related to the sanitary environment—a new type of flooring installation in the dressing rooms and shower facilities adjacent to the swimming pool and gymnasium.

The Board of Education of the City of Toronto endorsed the policy of providing senior public schools some years ago. Over a period of time, new school units and extensive renovation of existing units with or without new annexes have been provided to accommodate the program. The usual senior public school includes some junior grades, kindergarten to grade VI inclusive, to serve the young children in the immediate geographic area of the school, but the senior grades, VII and VIII, serve children from a wider geographic area. A senior school is able to provide facilities and staff for physical education, music, arts and crafts in a special setting which is not feasible in every public school. In a senior school such as illustrated here, most of the junior grades, as well as the senior grades utilize the gymnasium and swimming pool and ancillary facilities.

The school which provided the setting for this outbreak was a relatively new addition to the senior school program. The new physical education facilities came into use in January 1960. From then until the closing of school for summer vacation in June, the facilities were used only by the children in attendance at the school. During July and August the swimming pool was used in the Board of Education's summer swimming program. Children were in attendance during this period from a wide area. School re-opened for the beginning of the new school year on September 6, 1960.

Barely three weeks after school opening, on September 26, ten children reported of their own accord to the public health nurse in the health service room with lesions typical of *Tinea pedis*. During the remainder of this week, fifteen to twenty new cases came forward each day. The public health nurse reported this and she was asked to conduct a classroom inspection which was carried out on October 3, one week after the first cases were discovered.

In conjunction with the physical education teachers, the nurse conducted

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classroom inspections of those classes using the swimming pool facilities on that day. It was discovered that approximately 35 children out of an average class of 40 children exhibited lesions suspicious of being *Tinea pedis*.

It was arranged to continue the classroom inspections and the district public health physician, who acts as school physician also, joined the inspection team. Medical confirmation of the condition, based on clinical observation, was obtained. By October 7, 650 clinically obvious cases had been diagnosed. It is this Department's policy throughout the school system, to exclude open cases from the use of athletic facilities, and this policy was followed from the appearance of the first case. On October 7 the school authorities were asked to close the swimming pool and gymnasium facilities in order that we might conduct a thorough investigation into the source of this infection. This move was also advisable since the facilities were to be used commencing October 11 in the evening community program sponsored by the City's Department of Parks and Recreation which would have introduced a new population into a presumably infected environment.

Classroom inspections continued after the closure of the facilities and were completed on October 14. A total of 947 children showed evidence of clinical infection with athlete's foot. The population of the school is approximately 1,800 pupils, of whom some 1,400 use the swimming pool facilities and some 1,200 use the gymnasium facilities. Over 65% of the school population using the physical education facilities was infected.

INVESTIGATION OF OUTBREAK

The lesions were typical of the intertriginous type of athlete's foot, although some of the vesicular type were also encountered. All gradations of scaling, cracking and maceration were evident. Lesions also varied considerably in extent. Although most were limited to the interdigital surfaces, some had spread downward beyond the roots of the toes and on to the sole of the foot.

There was no evidence of physical irritation or trauma to any feet, either due to mechanical or chemical means. A special effort was made to observe this for reasons which will become evident later.

On October 11 a representative sample of children, some 25 in number, were closely examined and suitable scrapings of skin were sent to the Provincial Health Laboratory for special mycotic investigation. It was felt desirable to obtain laboratory confirmation of the clinical diagnosis, and in view of the unusual extent of this outbreak, there was concern as to whether a peculiar strain or organism had appeared.

Our search for the source of the outbreak was directed to the discovery of a common reservoir. The explosive characteristic of the epidemic tended to rule out casual person-to-person spread.

The pool deck, sides and bottom were constructed of non-skid ceramic tile. The bleacher seating area floor consisted of terrazzo over concrete. Entrance foyer floors to the ancillary rooms were also finished in terrazzo. The dressing room and shower room floors were finished with a composite mixture of epoxy resin and silica sand. Similarly, the dressing room and shower room floors off the gymnasium were finished with this new composite mixture. The walls in all

these areas were finished with an epoxy paint applied directly over concrete block.

This new flooring provided a hard, durable, impervious surface with non-slip qualities for wet areas. Epoxy resin itself would give such a surface with the exception that it would be smooth and slippery when wet. This was our first encounter with such flooring, and it was immediately suspect as the common reservoir of infection. The Health Department had not been consulted during the planning for the swimming pool facilities. However, it is doubtful if we would have foreseen the difficulty which arose. The surface of the composite floor felt like a very fine sandpaper, but there were also shallow pits and crevasses, the result of minor imperfections in its application. The composite floor looked dirty and there was gross evidence of debris ingrained in the surface. This was most noticeable in front of the changing benches, but there was also a definitely marked pathway toward each door. This appearance of dirtiness was not evident in the terrazzo and ceramic tile flooring.

There is a standard procedure for the caretaking of swimming pool decks, dressing room and shower room floors throughout the public school system. The floors are mopped with a solution of a detergent-disinfectant compound, a second mopping from a second container of the solution being carried out as a rinse and to gather up any gross moisture but leave a film of disinfectant solution. This procedure is carried out at the end of each school day. Where the facilities are used for special events or community programs outside of school hours, the procedure is repeated at the close of such activity. The caretaking staff became displeased with the new type flooring at an early date. No matter how hard they worked the composite floor never looked as clean as the tile. Hard scrub brushes were substituted to no avail.

The detergent-disinfectant used contained 2.5% alkyl dimethyl benzyl ammonium chloride and 0.25% anhydrous sodium carbonate. When diluted in the proportion of two ounces per gallon of water, it is said to have a residual germicidal action of 400 parts per million. It had been used for some years throughout the school system and the absence of any significant infection over these years testified to its effectiveness. The caretakers on hearing of the first cases doubled the strength of the solution; this action had no visible effect on the appearance of the floor nor on the reservoir of infection.

Although impervious to moisture, the composite floor surface exhibited large moist areas. Because of the rough surface it was not possible to mop the entire floor dry. No drains had been installed in the dressing room or adjacent toilet room floors. There was therefore, a combination of a very warm, humid atmosphere and moist dirt-ingrained floors which not only would provide protection for any microorganisms but which would provide a suitable environment for their growth and multiplication.

On October 13 and 14 samples were obtained from 16 different floor locations: the pool deck, gymnasium, shower rooms, and dressing rooms. Some were dry samples of the dust and floor debris; others were moist swabs utilizing broth culture. The decision to shut down the facilities was made late in the afternoon of October 7. Some of the floors had been subject to the caretaking procedure by this time, others had not. Strict orders were made to leave the

floors in this state until samples for laboratory analysis could be obtained. This was done, the samples being collected as described six and seven days after the facilities were last used. It was hoped that through this investigation a direct link between the lesions and the suspect floors might be obtained.

REMEDIAL ACTION

Exclusion of open cases was undertaken but when the magnitude of the outbreak was realized closure of the facilities was recommended and acted upon.

The children were advised to seek treatment. Some went to the family physician; others to the corner pharmacy. Most were treated with powders, lotions or ointments containing undecylenic acid, propionic acid, caprylic acid or their salts. A few received the older forms of treatment, potassium permanganate baths, Whitfield's ointment, etc.

The feet showed no trace of physical or chemical irritation as might occur from the physical nature of the floor, its composition (raw epoxy resin has been incriminated in contact dermatitis (1), but cured or hardened epoxy resin has not) or from the doubling of the strength of the detergent-disinfectant for cleaning purposes.

As the composite flooring was obviously suspect, measures were taken to correct the deficiency. Various cleaning methods were considered including the use of rotary scrubbers and vacuum extractors. It was decided that none of the methods would be practicable as a routine caretaking procedure. Replacement of the floor with ceramic tile seemed desirable but tremendously costly. A compromise was suggested and it was hoped that it would prove successful. The floors were treated with a muriatic acid solution to lift and remove all dirt and debris and then two coats of epoxy resin were applied. This produced a smooth but very glossy finish. It was decided that the standard caretaking procedure would be applied when use of the pool and gymnasium was resumed.

The swimming pool and gymnasium facilities remained closed until the week of November 7 (just over a month) while this was done. Preparatory to the opening of the facilities, a medical re-inspection of infected children was carried out on October 31. Clinical recovery was evident in over 85% of cases, further confirmation by therapeutic trial of the diagnosis. Those who had recovered were permitted to partake in athletic activity as soon as the facilities re-opened; those with open lesions or very early epithelialized areas were excluded for a further period, until healing was certain. As a prophylactic measure, all those re-admitted were advised to continue applying the treatment powders for a period of two weeks. Advice on foot hygiene was also given.

The results of microscopic examination of skin scrapings were available in a day and showed mycelium present in some cases. From four children an organism similar to *Nocardia minutissima* was isolated by direct examination of skin scrapings from between the toes. This organism is responsible for erythrasma which nearly always affects the axilla and groin. The significance of this finding in this particular outbreak is not understood.

Cultural examination of skin scrapings revealed the presence of *Trichophyton rubrum* in two cases. The results of these cultures became known to us early in November, just prior to the re-opening of the facilities at the school.

Reports of cultures of floor samples were not available until November 18. Of the 16 specimens, 7 showed no growth, 8 showed non-pathogenic fungi and 1 from an area of the untreated dressing room floor showed *Trichophyton mentagrophytes*.

SUBSEQUENT OBSERVATIONS

This outbreak had all the elements of a Sherlock Holmes mystery. Unfortunately the isolation of the two strains of *Trichophyton* do not provide the *prima facie* evidence that would satisfy Sherlock Holmes. Nevertheless, this is one occasion when action based on Dr. Watson's deductions proved effective.

A close surveillance was kept on the school following the re-opening of the facilities for the use of the same children and for the community recreational program.

No new cases of *Tinea pedis* came forward up to two and one-half months after re-opening. About six weeks after re-opening a sample survey of certain classes was done, and no new cases were discovered.

The gradual re-admission of the remaining cases to athletic classes continued as they showed evidence of clinical cure. The last child re-admitted had been unable even to attend school for a period of almost three months as a severe secondary infection became superimposed upon the original lesions.

The epoxy-treated floor became very slippery when wet. Numerous falls occurred and one child fractured a forearm as a result of a fall. After six weeks the epoxy-treated floor showed signs of wear, in two areas particularly: one where the epoxy had bubbled when applied and one where there was superficial accumulation of silica in the original flooring. The school authorities have now decided to replace the composite floor with ceramic tile.

Summary

An extensive outbreak of *Tinea pedis*, its investigation, remedial action and outcome, in a public school are described. The reservoir of infection was determined to be a new composite type of flooring consisting of a mixture of epoxy resin and silica sand which was installed in the shower and dressing rooms of the physical education facilities. The sand, added to give a non-skid quality to the epoxy resin floor, created a surface which was impractical if not impossible to keep clean and to disinfect. Strains of *Trichophyton* were isolated from the lesions and floor.

ACKNOWLEDGEMENTS

The author sincerely appreciates the interest and assistance of Mr. J. B. Fischer, Mycologist, Division of Laboratories, Ontario Department of Health.

Of the many members of the staff of the City of Toronto Health Department involved in this outbreak, particular credit is due Mrs. B. J. Shoss, Public Health Nurse, Dr. G. M. Arthur, District Public Health Physician, and Mr. W. D. Connery, Chief Inspector of Sanitation.

REFERENCE

1. Bettley: Brit. Med. J., 1960, 2: 1467.

Étude du Virus de l'Influenza: Réponse Antigénique de Souris Immunisées par voie Intradermique ou Sous-cutanée

A. BOUDREAULT et V. PAVILANIS¹

PLUSIERS travaux (4, 5, 6, 7, 14, 15) sur l'efficacité des vaccins contre l'influenza chez l'homme mentionnent que la vaccination par voie intradermique est préférable à la vaccination par voie sous-cutanée soit à cause d'une meilleure réponse antigénique, soit à cause de la diminution des réactions post-vaccinales, soit à cause de la quantité beaucoup plus faible de vaccin exigée par cette voie d'inoculation.

Cependant d'autres chercheurs ne sont pas de cet avis (2, 3, 10, 11, 12) et concluent que la vaccination par voie sous-cutanée est préférable à la vaccination par voie intradermique ou que du moins, à dose égale, les deux voies d'inoculation donnent des résultats équivalents.

Par ailleurs, des auteurs russes, anglais et américains (1, 8, 9, 13, 16, 17) favorisent la vaccination avec des souches atténuées vivantes.

Devant ces résultats contradictoires, nous avons recherché la méthode de vaccination susceptible de donner le meilleur taux d'anticorps chez la souris avec une quantité minimum de vaccin.

MATÉRIAUX ET MÉTHODES

1. *Virus*

Différentes souches de virus ont été cultivées dans l'oeuf embryonné de poule. Le liquide allantoïque recueilli a servi de vaccin. Les souches utilisées furent les suivantes:

A PR8/34 E 198, M 593, E 169,
A2 Australie/57 E 15.

2. *Traitement du virus*

Formolage: Le vaccin formolé a été traité comme suit: Le liquide allantoïque contenant le virus a été mis en contact avec du formol à la concentration finale de 1/5,000 durant 3 jours à 10° C. Après ce laps de temps, le formol n'a pas été neutralisé et le titre infectant pour l'oeuf est tombé à zéro quoique le titre hémagglutinant soit resté stable.

¹L'Ecole d'Hygiène et l'Institut de Microbiologie et d'Hygiène de l'Université de Montréal, Montréal, Qué.

Cette recherche a été partiellement subventionnée par le Ministère de la Santé Publique de Québec (subvention fédérale-provinciale à la recherche sur la santé publique).

3. Titrage des sérums

Les anticorps du sérum des souris vaccinées ont été mesurés par la technique de l'inhibition de l'hémagglutination (6). Les sérums furent traités à la trypsine et au KIO_4 (5). Une souche asiatique non sensible aux inhibiteurs non spécifiques de l'hémagglutination a été utilisée pour ces titrages.

RÉSULTATS

Des suspensions de virus grippal A PR8/34 et de A2 Australie/57 dans du liquide allantoïque ont été divisées en deux parties égales dont l'une conservée telle qu'elle et l'autre traitée au formol. Des groupes de 80 souris ont été immunisées de la façon suivante: 2 injections à 14 jours d'intervalle.

Groupe A	2 × 100 CCA de virus non traité par voie sous-cutanée
Groupe B	2 × 20 CCA de virus non traité par voie intradermique
Groupe C	2 × 100 CCA de virus non traité par voie intradermique
Groupe D	2 × 100 CCA de virus formolé par voie sous-cutanée
Groupe E	2 × 20 CCA de virus formolé par voie intradermique
Groupe F	2 × 100 CCA de virus formolé par voie intradermique
Groupe G	Souris non immunisées

Deux semaines après la dernière inoculation, chaque groupe de souris a été subdivisé en quatre sous-groupes de 20 souris. L'un des sous-groupes a été saigné et sur le mélange des sérums, le taux des anticorps a été mesuré par l'épreuve de l'inhibition de l'hémagglutination. Les autres sous-groupes ont été inoculés sous anesthésie par voie nasale avec différentes dilutions d'un virus d'épreuve homologue adapté à la souris. Après 14 jours le pourcentage de survie des souris a été noté. Les résultats de cette expérience sont contenus dans les tableaux I et II.

TABLEAU I—RÉPONSE ANTIGÉNIQUE DE SOURIS IMMUNISÉES PAR VOIE INTRADERMIQUE OU SOUS-CUTANÉE (SOUCHE A PR8/34)

Groupes de souris immunisées	Titre du sérum unités I.H.	Epreuve de protection, % de survie à différentes doses de virus d'épreuve		
		10 LD/50	100 LD/50	1000 LD/50
A—2 × 100 CCA s-c non traité	2048	100	100	100
B—2 × 10 CCA i.d. non traité	256	90	64	34
D—2 × 100 CCA s-c formolé	512	90	80	45
E—2 × 10 CCA i.d. formolé	128	30	10	0
G—Témoins non immunisés	0	0	0	0

s-c: voie sous-cutanée.

i.d.: voie intradermique.

Les groupes vaccinés A et B dans les tableaux I et II confirment la supériorité du vaccin vivant et pour la production des anticorps et pour le degré de protection obtenu.

Pour une dose de 200 CCA donnée en deux injections de 100 CCA, la voie sous-cutanée donne un titre légèrement plus élevé pour les anticorps du sérum que la voie intradermique si l'on compare les groupes A et C ou D et F, mais les deux voies donnent lieu à une protection sensiblement égale.

TABLEAU II—RÉPONSE ANTIGÉNIQUE DE SOURIS IMMUNISÉES PAR VOIE INTRADERMIQUE OU SOUS-CUTANÉE (SOUCHE A₂ AUSTRALIE/57 E 15)

Groupes de souris immunisées	Titre du sérum unités I.H.	Epreuve de protection. % de survie à différentes doses de virus d'épreuve		
		50 LD/50	500 LD/50	5000 LD/50
A—2 × 100 CCA	680	90	70	20
s-c non traité				
B—2 × 20 CCA	170	75	25	10
i.d. non traité				
C—2 × 100 CCA	310	90	65	0
i.d. non traité				
D—2 × 100 CCA	340	90	20	10
s-c formolé				
E—2 × 20 CCA	100	70	20	0
i.d. formolé				
F—2 × 100 CCA	170	90	30	10
i.d. formolé				
G—Témoins non immunisés	0	0	0	0

s-c: voie sous-cutanée.

i.d.: voie intradermique.

La comparaison des groupes A et B ou D et E indique qu'une dose de virus 5 fois (tableau II) ou 10 fois (tableau I) plus petite par voie intradermique donne des résultats inférieurs tant pour le titre des sérums que pour le degré de protection obtenu. Cette voie d'inoculation n'est donc pas plus sensible que la voie sous-cutanée.

Enfin si l'on compare les groupes B et D nous notons que 20 ou 40 doses de virus vivant inoculées par voie intradermique donnent un titre des sérums légèrement plus bas, mais une protection de même ordre que 200 doses de vaccin formolé inoculées par voie sous-cutanée.

Conclusions et Discussion

Les deux expériences citées indiquent qu'à doses égales, les voies sous-cutanée et intradermique son équivalentes.

Dans la gamme des doses inoculées durant ces travaux, la voie intradermique ne s'est pas révélée plus sensible que la voie sous-cutanée. Il reste possible que pour des doses plus petites, la voie intradermique soit plus sensible, mais avec les doses utilisées dans cette expérience, il semble que ce soit plutôt l'inverse qui se produise.

Un intérêt spécial réside dans le fait que le virus vivant, inoculé par voie intradermique donne une protection égale à celle obtenu avec une dose dix fois plus élevée de virus formolé par voie sous-cutanée. Lors de pandémies dues à de nouvelles souches de virus, la vaccination par voie intradermique avec des doses faibles de virus vivant serait peut être à considérer étant donné l'impossibilité de produire rapidement les quantités énormes de vaccin standard néces-

saires à l'immunisation de grandes populations. En ce cas une méthode rapide d'atténuer ces nouvelles souches est à désirer.

Summary

The antigenic response of mice to intradermal and subcutaneous immunization with influenza virus strains was investigated. It was found that these two routes give a similar response for a similar dose of vaccine.

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CORRECTION

FLUORINE, FLUORIDES AND FLUORIDATION IN ALBERTA G. Clarke, B.Sc., D.D.S. and C. R. Castaldi, D.D.S., M.S.D.

The attention of readers is directed to the following corrections in this article which appeared on pages 290 to 296 of the July issue.

Page 291, lines 32 and 33 should read "A plebiscite was held in Calgary in 1957 with 51% voting against fluoridation."

Page 292, line 1 "Athabasca 0-1 ppm. F. (Athabasca River)."
line 12 "Grassy Lake area which varied in fluoride content between 0.7 and 3.8 ppm."
line 32 "Community water supplies—Spirit River, over 0.7 ppm. F."
line 33 "Private wells—10 wells over 0.7 ppm. F."

Page 293, line 7 "Community water supply—0.2-0.5 ppm. F."
line 15 "Community water supplies—3 over 0.7 ppm. F."
line 24 "Private wells—32 over 0.7 ppm. F. with some up to 5 ppm. F."
line 30 "Private wells—16 tested, only one over 0.7 ppm. F."
line 34 "Community water supplies—none over 0.7 ppm. F."

Page 294, line 17 "Community water supplies—5 over 0.7 ppm. F."

Radiation Fallout and its Health Implications¹

R. D. CONNOR,² B.Sc., Ph.D., A.Inst.P.

IT has been known for nearly sixty years that there is a radioactive component in the atmosphere and indeed this was observed almost as soon as the phenomenon of radioactivity itself. It is very likely that this activity has been present in the air ever since the crust of the earth solidified. Experiments performed at the turn of the century showed that the air contained radioactive gases as well as active particles in the form of tiny aerosols. This activity is now known as the natural activity to distinguish it from man-made fallout. The latter is the result of nuclear explosions and prior to 1945 was totally absent from the air.

The natural component consists of two families of radioactive substances, one arising from radium and the other from thorium. Radium is distributed in the soil in a concentration of one part in a thousand billion. This seems to be extreme dilution but there is quite a lot of earth and in every ton, two million atoms of radium are breaking up every minute. We should remember that a ton of earth is only about fifteen cubic feet. When an atom of radium breaks up it becomes an atom of a gas radon which itself is radioactive. While radium disappears only very slowly, one half of the atoms changing in 1,600 years, the gas radon decays to half its strength every 3.8 days. It therefore has time on the average to diffuse out of the pores of the soil, at least from the surface layers, and if it succeeds in escaping it too proceeds to break up, forming a whole series of daughter substances which are solid at normal temperatures and which being electrically charged absorb rapidly on to dust particles in the air. The activity of these solid particles dies to half strength in about 30 minutes and is found predominantly on dust particles or aerosols of diameter 0.001 to 0.04 microns (1). Radium in the soil, therefore, produces radon gas and its daughter products in the air. In the same way thorium in the soil produces a gas like radon called "thoron" which dies to half strength every 57 seconds and which again may diffuse out of the top soil into the air where it too produces solid daughter products whose half life is 10.6 hours.

Whereas the natural activity gets into the air from the soil, fallout descends from above. Nuclear explosions throw enormous amounts of active material into the upper air, the activity concentrating in the lower regions of the stratosphere (2). From there this fine dust settles out on a global scale and is dispersed unevenly to every part of the world by the highspeed winds of the upper air. It takes several years for this active dust to settle so that even if nuclear tests were to be suspended we could still expect to find this long-lived active material

¹An extended version of the paper read at the Tenth Annual Institute for Sanitary Inspectors at the University of Manitoba, March 1960.

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present in the air for several years to come. Were there to be no more nuclear explosions, we could expect that most of the fallout would have settled out by 1963 and that the concentration of man-made radioactivity at the ground would be twice that present in 1958 (3).

If air is passed through a specially prepared filter capable of removing these small dust particles, we would collect in addition to the ordinary pollution present, the radioactive daughter products of radon and thoron and fallout particles. We could then count the radiation coming from this filter and determine how much of each of the three active components was present. For well over a year such experiments have been undertaken day by day at the University of Manitoba and a considerable volume of information has been collected on the day-to-day variations of the radioactivity in the air.

It is found, for instance, that heavy rain or snow greatly reduces the natural activities but affects the fallout concentration only slightly. This probably indicates that the fallout particles are of a different size to those carrying the natural activities. With snow on the ground the short-lived thoron cannot get out of the soil and into the air; therefore, we find during the winter months that the concentration of thoron and its daughter products is much smaller than that appearing in the summer. With several days of life at its disposal a radon atom has a better chance of getting through such a barrier and once into the air tends to be kept near the surface of the ground by the frequent presence of so-called "temperature inversions" in the air which prevent the mixing of the lower and upper layers of the atmosphere. Thus radon and its daughters on winter days tend to concentrate rather like smoke on cold days, i.e. in the low-lying regions near the earth. We therefore find during the winter here in Winnipeg that the concentration of radon is higher than that present during the summer, when rapidly rising columns of hot air cause rapid mixing, and, therefore, rapid dilution of the radioactive gas escaping from the soil. While all these effects cause considerable day-to-day variations in the concentrations of the natural activity the corresponding variations in the fallout concentration are much smaller. The orders of magnitude of these activities that we find here are:

Radon	100 micro-micro curies per cubic metre,
Thoron	1 micro-micro curie per cubic metre,
Fallout	1 micro-micro curie per cubic metre.

The thoron concentration is only 1% that of the radon on the average in spite of the fact that the thorium concentration in rocks and soil is 4 times that of the uranium from which the radium is derived. This is explained by the relatively short half-life of the thoron which precludes the diffusion of the gas from any but the topmost layers of the earth's crust.

Apart from the recent French atomic bomb tests there has been a 26-month lull in the race to test these devices. Our observations here showed that in December 1958 the amount of fallout in the air was rising due to the increased rate of deposition from the Russian and American tests in 1958. Thereafter the activity reached a flat maximum and in June 1959 a decrease was noticed which continued until the end of August at an increasing rate. In part this rapid clearing of the air in August was due to the rather large amount of rainfall which we experienced during that month. In November the fallout level had risen again but had settled to a value about one-tenth of that present in the early months

of the year. Most recent observations (December 1960) showed that the fallout in the air corresponded to about 0.5 micro-micro curies per cubic metre which is about a factor of 8 down in the mean value for the beginning of 1959. It appears that the amount of artificial activity in the air decreased considerably during 1959 and without further testing can be expected to fall even more.

PUBLIC HEALTH FACTORS

From the public health point of view fallout can be considered as consisting mainly of two isotopes strontium-90 and cesium-137 which are long-lived and which if ingested are deposited in the bone. These materials enter the human food cycle usually in the form of contaminants in milk. The strontium in the air today will tomorrow or the next day be deposited on the earth and can be incorporated into or deposited upon vegetation which the milk-producing mammals devour. These elements resemble calcium chemically and so appear in the milk and for some time it was believed that as more and more fallout came down to the earth and the soil concentration increased that more and more strontium would be taken up via the roots of the plant, built into its structure and then be eaten by cows, thus causing the strontium concentration in the milk to rise continuously. This does not seem to happen. Apart from a pronounced increase in the middle of 1959 due to the great flurry of nuclear explosions in 1958, the figures for the Sr-90 content of Winnipeg milk showed a significant fall between the spring of 1958 and the fall of 1960 (4). Figures for the national average closely parallel those of Winnipeg. In a recent British report (5) it is stated that the principal factor affecting the Sr-90 concentration in milk is not the total accumulation on the ground but is the fallout of the preceding two months.

If this is so it would mean that the total accumulation is irrelevant and suggests strongly that the bulk of the activity is not in but on the vegetation. Further support for this view comes from presently unpublished observations at the University of Toronto that fruit which showed a weak activity appeared almost inactive when peeled. The activity was either in or on the skin.

Differences in the activity of milk from place to place, are, in the main, occasioned by two factors. These are the local rainfall which accelerates the deposition and the geographic locality with respect to wind direction. It appears that the activity is concentrated between latitudes 40° and 50° in the northern hemisphere and the principal Canadian cities are in that belt.

It has been estimated (5) that in Britain in 1958 the average daily diet contained approximately 5.9 micro-micro curies/gm Ca or 5.9 strontium units of which 55% came from milk, 11% from cheese, 14% from vegetables and fruit, 11% from cereals, 5% from meat, and the balance from other sources. This figure has recently been confirmed by blood plasma analysis (6). A subsequent report (7) revealed that owing to the large increase in the activity in milk in 1959 the average daily intake during that year would be 9.0 strontium units. This is 1/20th of the maximum permissible intake recommended by the British Medical Research Council. We could probably assume our dietary level was of the same order, perhaps somewhat higher. Recently it has been suggested that the "tolerance" level in bone should be reduced from 100 to 67 Sr units for the general population. To build up 10 Sr units, the dietary level would need

to be 40 Sr units although for young children I would anticipate a lower figure. Estimates of the population damage due to the existing level of fallout vary very much. The moralists produce figures showing cause for alarm. The militarists and the politicians declare the present hazard to be negligible. The truth, at present, may be somewhere within these extremes. Certainly fallout is benefiting no-one and if the level rises by one order of magnitude there will be cause for intensive heart-searching by those who are in a position to stop these detonations. No one having the public welfare at heart would grieve if there were to be no more nuclear tests.

The natural activities in the air do not constitute a health hazard. Even though the amount of solid material brought down by rain and snow is 100 times greater in activity than the fallout, it dies away very rapidly leaving a long-lived activity which in amount is 1/40,000 of that initially present. Moreover, this activity is not passed on to the milk supply to any appreciable extent.

In a paper appearing in *The Lancet* in October 1959 (8) it was pointed out that the death rate from leukaemia in certain regions of Wales is much higher than that in other parts of the United Kingdom. Whereas for the whole of the U.K. in 1920 the death rate from this disease was 1.1 per 100,000, the corresponding average for the four years 1950-53 was 4.5 and for 1954-57 was 5.1. In some regions of Wales the figures were for the last two periods 6.1 and 10.0 and the rate of increase was also high. Why should Wales have such a large death rate? It is known that Wales has a large rainfall and the soil is low in calcium. The Sr-90 deposition is of the order of three times that appearing in other regions. Milk from part of Cardiganshire in 1958 contained 28.4 Sr units relative to a national mean of about 7. The diet there may contain 23 Sr units relative to the national mean of 6.

British figures (9) indicate that the Sr content of the bones of young children lies between 1 and 10 Sr units. Now 10 Sr units is currently believed to be safe giving to the marrow 30 mr per year while natural radium in the bones gives 37 and cosmic and other background radiations give 80 mr per year. The best British and United Nations figures indicate that this 30 mr per year should cause only one or perhaps two additional cases of leukaemia in 33 million people while the actual increases noted here are 600 times this and we would not expect the general population to have as much Sr in their bones as is found in those of young children. At present we do not understand the rising incidence of leukaemia in Wales. The effects if entirely attributable to fallout appear to be 3 orders of magnitude greater than anything we would have expected from our information on the effects of natural radiation and we look to further work to resolve the situation. It would appear, however, that at least part of this high death rate may be attributable to artificial radiation because the type of leukaemia observed after the Japanese explosions was that appearing in about half of the observed cases.

A recent American Report (10) shows that whereas in 1958 the Sr-90 concentration in the bones and teeth of young children was about 1 $\mu\text{C/gm Ca}$, it had risen to 3 $\mu\text{C/gm Ca}$ in 1960. The First (1956) Report of the British Medical Research Council on radiation hazards (11) suggested that, should this concentration ever reach 10 $\mu\text{C/gm Ca}$, the entire situation should be re-assessed, but in the light of increasing knowledge of the effects of this isotope

their Second Report (12) indicated that a level of 33 $\mu\text{C/gm Ca}$ could be reached before re-examining the entire problem. Nonetheless this is perhaps the most disquieting aspect of the whole problem, viz. that the body burden of the young is rising one unit per year while the adult burden is about one-third of this. Should it become necessary, as a public health measure, to remove the strontium from milk several techniques are available (13) but such a step, undertaken on a national scale would surely indicate that the problem had deteriorated far beyond the present situation.

Thus far, we have not considered the effects of Cs-137. As for Sr-90, recent work (14, 15) has shown its concentration in humans to be a linear function of the amount of milk consumed. Cs-137 is a gamma-ray emitter like the natural potassium-40, so, using scintillation counters, an in vivo determination can be made of their relative concentrations. In 1959 the Cs/K ratio was between 50 and 60 $\mu\text{C.Cs 137 per gm K}$ (14, 15), indicating an approximate doubling in the Cs concentration in the interval from the beginning of 1956 to the end of 1959. Currently, the genetic dose rate from Cs-137 is about 6% of that being received from natural potassium in the body and is less than 2% of the total natural radiation dose to which we are all exposed.

In endeavouring to assess the flux of man-made radiation on the population one should not forget the part played by diagnostic and therapeutic medical X-rays. In 1957 in the U.K. some 13 million X-rays were given and we can assume that the population average from this source would be of the order of the natural background dose of about 100 mr/yr. It would be foolish to forgo the proven benefits of medical X-rays on the basis of some possible future damage and this increased dose we gladly accept, knowing the infinitely greater benefits which accrue. Nevertheless, it is encouraging to see a reduction in the number of X-rays given to young people. I believe that it is in the light of the figures given above that our present position has to be assessed. Until much more is known about the effects of low level irradiation of the whole populations, prudence would dictate that one should err on the side of safety and it is not inconceivable that the somatic effect rather than the genetic will be the controlling factor.

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Trichinosis in Garbage-Fed Swine

J. F. FRANK, D.V.M., M.Sc.¹ and OLIVE E. WOOD, B.Sc.²

A SURVEY conducted in this laboratory during the years 1949 to 1950 indicated that the incidence of trichinosis in 1,002 swine from the three Maritime provinces was 0.4% (1). In 1937 and 1938 Cameron (2) found that 0.65% of 157 unselected swine from the same area were infected with this parasite. In the United States it was reported that approximately 1% of farm-raised (grain-fed) pigs were similarly infected (3).

The incidence of infection quoted for garbage-fed hogs in various parts of the United States for the years 1933 to 1939 varied from 6 to 11% (3). As the surveys in the Maritime area mentioned above were based mainly on the examination of swine from premises where they were given only grain feeds, it was considered advisable to examine hogs produced on garbage feeding premises in the same area.

Canadian law requires that garbage be cooked before being fed to swine and that premises where garbage is fed be licensed. This requirement has been necessary for a considerable number of years and is enforced under the provisions of the Animal Contagious Diseases Act. Regular inspections of licensed establishments are carried out by officers of the Health of Animals Division. These regulations, however, do not prevent a hog raiser from feeding table scraps from his own kitchen to his own swine.

METHODS

In this survey specimens were obtained from the three Maritime Provinces mentioned in earlier reports and also from Newfoundland. Portions of swine diaphragms were collected by inspectors at the time of slaughter and forwarded to the laboratory for examination.

The number of premises licensed to feed garbage in these provinces at any one time varied from 100 to 110, depending on the closing down or starting up of these operations. The average number licensed during any one year was 105; 79 of these were surveyed and their geographical distribution is shown in Table I.

The methods used in examining the diaphragms for *Trichinella spiralis* larvae were as described in a previous paper (1), each specimen being submitted to both the digestion-Baermann technique and direct microscopic observation in a trichina compressorium.

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TABLE I—LICENSED GARBAGE FEEDING PREMISES SURVEYED IN THE FOUR ATLANTIC PROVINCES FOR TRICHINOSIS

Province	No. of Licensed Premises	No. Premises Checked
Nova Scotia	56	36
New Brunswick	31	25
Prince Edward Island	8	8
Newfoundland	10	10
Total	105	79

RESULTS

Over a period of approximately 5 years, 1954 to 1958, portions from 789 swine diaphragms were examined. The number of specimens originating from each premises varied from 1 to 27.

The diaphragms from only 2 of the 789 swine (0.25%) were found to contain trichinellid larvae. One was positive by both the digestion-Baermann method and by direct microscopic study; the other was positive only by the digestion-Baermann method indicating that this was a light infestation.

These two swine were from a single farm in Nova Scotia so that only one of 79, or 1.3%, of the premises were infected.

Discussion

The incidence of 0.25% of trichinosis in garbage-fed swine in the Atlantic Provinces is in sharp contrast to that of 6 to 11% reported from various parts of the United States (3). The difference may be accounted for by the fact that the garbage fed to swine on these premises was cooked and thus any larvae present would have been destroyed. It should be noted, however, that most of the United States now have laws that require the cooking of garbage fed to hogs. It is very likely that surveys carried out in that country at the present time would show much lower incidence of infection than was present during the years 1933 to 1939.

It might be of interest to speculate how the swine on the one infected premises could have become exposed to *Trichinella spiralis*. This may have occurred through some fault in management such as the use of the same containers for transporting uncooked and, subsequently, cooked garbage. Also, the possibility exists that the pigs may have eaten infected rats. The incidence of trichinosis in rats trapped on dumps, farms, abattoirs and other localities in the Maritime Provinces has been reported in an earlier paper (4).

Summary

Examination of diaphragms from 789 swine originating from licensed garbage feeding premises in the four Atlantic Provinces revealed the presence of trichinellid larvae in only two diaphragms or 0.25%; both were from the same establishment. This is considerably lower than the 6 to 11% reported for garbage-fed swine in the United States during the years 1933 to 1939. At that time garbage fed to swine in the United States did not have to be cooked and the difference might be due to this factor.

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Canadian Journal of Public Health

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THE REGINA MEETING

THE fifty-second annual meeting of the Association and the seventh meeting of its Saskatchewan Branch were held in Regina, June 6-8, 1961. Highlights of the meeting were the reporting of the implementations of the Action Committee, the adoption of revised by-laws, plans for new projects, and the provision of outstanding scientific and social programs.

An innovation was the holding of An Institute on Community Education for Health in Saskatoon immediately before the Regina meeting, from June 2-5. Participants attended the Association meeting in Regina and held a final session after the close of the Association's meetings.

The sponsors of the Institute were the Department of Social and Preventive Medicine and the Centre for Community Studies of the University of Saskatchewan and the Department of Public Health of the Province of Saskatchewan. The goals were to give an over-all view of health education, to assess the effect of community change relative to public health hazards, to clarify the role of professional health educators, to analyze teamwork in program planning and to develop effective techniques in presenting health programs to the public. Attendance at the Institute was limited to fifty, including the directing staff. The participants were of many disciplines including in addition to health educators, public health physicians, nurses and sanitarians. The greater part of the time was spent in discussion by workshop groups. Dr. George Rosen, Professor of Health Education, School of Public Health and Administrative Medicine, Columbia University, New York, was the principal guest speaker and participated in the discussions.

The scientific program of the Annual Meeting was particularly well planned. There were four general sessions, five panel discussions, and one play. In all, more than fifty papers were presented.

The keynote address following the opening ceremonies was given by Dr. James M. Mackintosh, Emeritus Professor in Public Health, University of London, and was entitled "Health, Medicine and Social Change". A panel discussion on this subject was participated in by representatives of government, group private medical practice, industry, and a school of hygiene.

At another general session Dr. A. J. Rhodes, Director, School of Hygiene, University of Toronto, gave the second Donald T. Fraser Memorial Lecture. His subject was "Virus Infections, a World-Wide Challenge in Public Health".

At the fourth and final general session, Dr. Lester Breslow of the California State Department of Health spoke on another timely public health subject "The Prevention of Chronic Disease". His address was followed by a panel discussion.

A new feature for a public health scientific program was the presentation of a play entitled "The Team and I" at a combined meeting of the Public Health Nursing, Health Education, Mental Health and Nutrition Sections. The presentation was closely associated with the proceedings of the Institute on Community Education for Health.

Of outstanding importance to the Association were the meetings of the Executive Council, the governing body of the Association. Sessions were held on the day preceding the annual meeting and at the conclusion of the conference. Recommendations, resolutions, and reports from the Executive Council were considered by the business meeting of the Association during the sessions of the conference. Of outstanding interest were the reports of the work of the Association during the past year during which recommendations of the Action Committee were implemented and the Association enjoyed the services of Dr. E. J. Young as Executive Director. This appointment on a full-time basis was one of the major recommendations of the Action Committee. The Consultant Advisory Service in Public Health Administration was organized and the liaison between the Association and its provincial divisions and affiliated associations has been further developed.

The revised by-laws were approved by the Executive Council and later accepted at the general business meeting. During the past two years the by-laws have been revised entailing a large amount of work by Dr. K. C. Charron and his committee. The revised by-laws provide the Association with comprehensive guide lines for its expanded role of service. The Council expressed thanks to Dr. Charron and his committee.

At present the Association has a number of sections providing for the interests of various groups and it has also a number of standing committees. The Council requested that the Executive Director and the Executive Committee undertake a study of the functions of sections and the work of the various committees.

In its resolutions the Association reaffirmed and amplified its endorsement of fluoridation, stressing that throughout Canada "communities having a public water supply adjust the fluoride content of their water supply to a level considered optimal for the maximum prevention of dental decay." Further the Association stated "the use of fluoride tablets or of concentrated fluoride solutions in the light of present knowledge cannot be considered to be a substitute for communal water fluoridation". The Association urged that "all Departments of Public Health continue or initiate appropriate, comprehensive educational programs in support of fluoridation". In another resolution the association brings to the attention of public health authorities the value and importance of the prevention of secondary attacks of rheumatic fever by chemoprophylactic means. Adequate planning and preparation to deal with the effects of natural disasters and of enemy attack were stressed in a resolution

emphasizing the necessity of organizing the total community health resources and to use the techniques of public education.

Those attending the Regina meeting soon realized the meaning of western hospitality. A warm welcome was extended to delegates and their friends at a hospitality buffet given by the Saskatchewan Branch on the evening before the convention. At a luncheon on the first day visitors were made aware of the history and the attractions of Saskatchewan by a most humorous talk by the Provincial Archivist, Mr. John Archer.

On Wednesday evening following the President's reception, the members were guests of the Province of Saskatchewan at the annual dinner. The address of the Honourable J. C. Douglas, Premier of the Province, on the provision of medical care was of great interest to the members of the Association. On the final evening the Chamber of Commerce of the City of Regina entertained the members at a buffet supper and an evening of delightful entertainment was provided by a Regina theatre group when George Bernard Shaw's "Caesar and Cleopatra" was presented. The visiting ladies and their friends were most appreciative of Regina hospitality which included a luncheon, coffee hour, and a tour of the R.C.M.P. barracks.

For all the gracious entertainment, for the planning, arrangements and conduct of this well attended and splendid meeting, the Association tenders again its thanks through its Journal to the Premier and the Minister of Health of Saskatchewan, to the Mayor and members of Council and of the Chamber of Commerce, City of Regina, to Dr. F. Burns Roth, President of the Association, and to Dr. Hugh E. Robertson, President of the Saskatchewan Branch.

ANNUAL REPORT OF THE ASSOCIATION

1960-61

PART III

REPORT OF THE COMMITTEE ON HONORARY LIFE MEMBERSHIP

F. B. Roth, M.D., Chairman

I have the honour to present the report of the Committee on Honorary Life Membership. The following persons were nominated as Honorary Life Members at the fifty-second Annual Meeting of the Canadian Public Health Association in Regina:

Dr. Arthur Edward Chegwin—Director, Division of Dental Health, Department of Public Health, Saskatchewan

Dr. Robert George Ferguson—Former Medical Director and General Superintendent, Saskatchewan Anti-Tuberculosis League

Dr. James McAllister Mackintosh—Emeritus Professor of Public Health, London School of Hygiene and Public Health

Dr. George Rutherford Walton—City Health Officer, Regina, Saskatchewan

ARTHUR EDWARD CHEGWIN, L.D.S., D.D.S., D.D.P.H., F.I.C.D.

Born in 1895 at Lacombe, Alberta, Dr. Arthur Edward Chegwin received his early education in Winnipeg and Moose Jaw. On graduation from Moose Jaw Collegiate in 1912 he worked for the Canadian Pacific Railway until 1914 when he registered in dentistry at the Royal College of Dental Surgeons, University of Toronto.

World War I interrupted his studies when he enlisted in the University Infantry Regiment in 1916. Later he transferred to the Dental Corps and proceeded overseas in 1917.

After graduation from the Royal College in 1919 Dr. Chegwin set up a dental practice in Moose Jaw and was also a part-time school dental officer. Observing the great need for dental repair among school children he soon realized that a new attack on dental problems was necessary—that dental salvage was not enough. He concluded that dental health education was a necessity if general dental health were to be maintained or improved. From this time on Dr. Chegwin dedicated much of his time and effort to dental health education in the schools, in his practice, with his professional colleagues, and, in fact, with anyone who would listen to him.

Interested in community affairs, Dr. Chegwin served on the Moose Jaw City Council for eight years during the great depression. In this time he served on the relief committee and was chairman of the hospital board for three years. This experience helped him to become a staunch advocate of hospital insurance and other prepaid health services.

Son of a Methodist minister, he has been active in church work and was an elder of Lakeview United Church in Regina for many years.

In 1940 Dr. Chegwin enlisted in the Army Dental Corps and was attached to the R.C.A.F., where he served as a senior dental officer in various training centers. He was discharged in 1945 with the rank of major.

On re-establishing his practice in Moose Jaw he was elected to the Saskatchewan Dental Council in 1946. In 1948 the Council persuaded him to accept a newly created position in the Saskatchewan Department of Public Health with the title of director of dental health, the position he holds today.

Dr. Chegwin attended the diploma course in dental public health, School of Hygiene, University of Toronto, in 1949. In 1957 he was made a Fellow of the International College of Dentists, Canadian Section. The following year he was appointed as the Saskatchewan member to the Canadian Dental Association Council on Dental Research. He is a member of the Regina, Saskatchewan, and Canadian Dental Societies.

Taking a keen interest in the development of public health, Dr. Chegwin took a leading role in the organization of the Saskatchewan Branch of the Canadian Public Health Association and served as its first president for two years. He is a member of the American Public Health Association and is presently chairman of the dental section of the Canadian Public Health Association.

ROBERT GEORGE FERGUSON, B.A., M.D., LL.D., M.B.E.

Retired in 1948 from his position as director of medical services and superintendent of the Saskatchewan Anti-Tuberculosis League, Dr. Robert George Ferguson can look back on an illustrious career as an internationally recognized leader in the treatment and prevention of tuberculosis. His role in the great struggle with the "Captain of the Men of Death" shines brightly in the galaxy of remarkable achievements in Canadian public health in this century.

Born on September 12, 1883, on a pioneer farm near Yorkton, Saskatchewan, Dr. Ferguson graduated in medicine from the University of Manitoba in 1916. Later he took postgraduate studies at the Harvard School of Medicine and the London Hospital, London, England.

In 1917 he began his long career with the Saskatchewan Anti-Tuberculosis League, first as medical superintendent of the Fort Qu'Appelle and, by 1930, as the League's director of medical services and general superintendent. Under his direction the League gained world-wide recognition in the treatment and prevention of tuberculosis.

Dr. Ferguson's published papers on tuberculosis have won international acclaim. Among the best known are his "Report on the Medical Studies of the Anti-Tuberculosis Commission" (1922); "Tuberculosis Among the Indians of the Great Canadian Plains" (1928); and "BCG vaccination among the Indian Infants" (1949). His book, "Studies in Tuberculosis", published in 1955, made a most valuable contribution to the study of epidemiological and control problems in tuberculosis. His appointment to the WHO's Sub-Committee on Tuberculin and BCG is further evidence of his stature in this field.

The tuberculosis problem was a personal challenge to Dr. Ferguson. How well he met it is evidenced by the honours and expressions of gratitude showered upon him by people in all walks of life. On retiring he was honoured by the native Indians, the University of Saskatchewan, the staff of the League and its board of directors, the provincial and federal governments, and by hundreds of ex-patients.

Among the many honours conferred on Dr. Ferguson are the following: Member of the British Empire (1935); Doctor of Law (1946), University of Saskatchewan; honorary life membership in the Canadian Legion (1947), Saskatchewan Medical Association (1948), Canadian Tuberculosis Association (1952), Canadian Medical Association (1953), Saskatchewan Anti-Tuberculosis League, General Practitioners of Canada Association, Brazilian Tuberculosis Association, and the Saskatchewan Branch of the Canadian Public Health Association. In 1961 he was awarded the Charles Mickle Fellowship by the University of Toronto. This fellowship is awarded annually by the University to the member of the medical profession who has done the most during the preceding ten years to advance practical knowledge in medical art or science.

JAMES McALLISTER MACKINTOSH, M.A., M.D., LL.D., F.R.C.P. (Lond.), F.R.C.P. (Edin.), D.P.H., *Barrister-at-Law of Gray's Inn, Emeritus Professor of Public Health in the University of London.*



A former County Health Officer of distinction, who became chief of the health services of his country, a professor of public health in two great universities, who for six years was head of the London School of Hygiene and Tropical Medicine, James Mackintosh in his "retirement" was for two years in charge of the education and training programs of the World Health Organization whose early developments he had helped to guide. Now he describes himself as a "student" while devoting his time to compiling a work on the history of international co-operation in health. He is a man to honour more for what he is than for the titles which

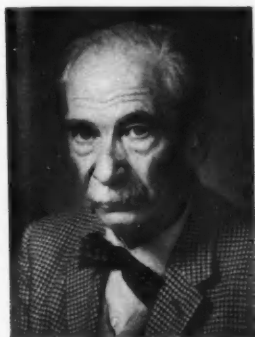
he has held.

James Mackintosh, despite his youthfulness of mind and mien, tells us that he was born a long time ago. However that may be, it is certain that he was born a Scots Highlander in the heart of the Highlands, and that his Gaelic grandfather taught English as a foreign language. For all his many years as a citizen of the world, a teacher of students from many lands, and a servant of world-wide ideals, he remains the romantic Highlander that he was born. Since their student days, he has been married to a devoted, patient, loving and learned wife and those who would honour him must likewise honour her.

His greatest contributions to Public Health have been as a teacher, and as a source of inspiration to the many hundreds who are proud to be called his academic children. To them, James Mackintosh has given a profound respect for true learning; an understanding of the processes of social change; a respect for natural law; and a belief that those who would serve the public health well must be imbued with curiosity, dedication and fearlessness of purpose.

As much at home with Shakespeare's plays as with the statutes of many countries, a bibliophile, a lover of good conversation, a connoisseur of good wine, of music and the arts, he is an example of the truly cultivated man. Doctor of Medicine and of Laws, Barrister-at-Law, and Master of Arts, in everything that he says or writes James Mackintosh is, too, a supreme craftsman of the English language. For almost a year he was all but blind. The essay which he wrote at that time, called "Out of the Shadows", was a noble piece of English writing and showed his immense insight into suffering. It ended with these words: "Lucky are those who are fond of music and of thinking long, long thoughts".

The Canadian Public Health Association is proud to add to its role of Honorary Life Members a man whose own words make such pleasant music; a man who, through his own long thoughts, has been of so much service to his fellow men.

GEORGE RUTHERFORD WALTON, M.B., D.P.H.

Medical health officer for the City of Regina since 1936, George Rutherford Walton, M.B., D.P.H., was born in Toronto, moved with his family to Manitoba, but returned to Ontario at the age of six. On high school graduation he enlisted and served at the front with the 58th Canadian Infantry. He was wounded at Passchendaele, invalided back to Canada, and later discharged from the service. His army career over, Dr. Walton studied medicine at the University of Toronto and received his degree, bachelor of medicine, in 1923.

The years 1923-24 found him in Regina where he was on the house staff of the Regina General Hospital. Following this experience he engaged in medical practice until 1927 with the veteran missionary Robert George Scott, M.D., D.D., at Wakaw, Sask. In that year he was appointed medical officer to the federal Department of Railways and Canals where in Dr. Walton's words, "I was in charge of a small hospital which the Government built at Churchill to care for the men employed by the Government to construct a harbour there. I was the entire medical staff of the hospital. I was also the police magistrate, a post I was made to assume."

Having now determined on a career in public health, Dr. Walton attended the School of Hygiene, University of Toronto, and received his diploma in public health in 1934. He then spent two years engaged in virus research at the same school before coming to Regina in 1936 to take up his duties as city medical health officer.

Dr. Walton has, through the years, given his time and talents to many organizations. He was president of the Saskatchewan Health Officials Association in 1937, vice-president of the Canadian Public Health Association in 1951 and has been a member of its executive council for many years. He was active in the organization of the Saskatchewan Branch of the CPHA in 1954 and served on its executive for some time. In 1951 he was president of the Regina and District Medical Society and in 1961 was awarded an honorary membership in this society.

For many years he has been chairman of the Outpost Hospital and Nursing Committee of the Saskatchewan Division of the Canadian Red Cross Society; chairman of the Research Committee of the Saskatchewan Division of the Canadian Cancer Society; member of the Board of Governors of the Regina General Hospital; and member of the Specialty Committee in Public Health of the Royal College of Physicians and Surgeons of Canada. He also served as a board member of the Regina Branch of the Victorian Order of Nurses, the Regina Children's Aid Society and as a director of the Saskatchewan Historical Society.

REPORT OF THE COMMITTEE ON NOMINATIONS

G. K. Martin, M.D., D.P.H., Chairman

Miss Isabel Black

Miss Monica Frith

Dr. M. R. Elliott

Dr. A. A. Larsen

Dr. E. W. R. Best

Mr. G. Chiasson

Mr. R. E. J. Ricketts

The names submitted for the elected officers of this Association for 1961-62 are as follows:

Honorary President

The Honourable M. B. Dymond, M.D., Minister of Health of the Province of Ontario, Toronto

President

Dr. W. Gordon Brown, Deputy Minister of Health, Province of Ontario, Toronto

President-elect

Dr. K. C. Charron, Director of Health Services, Department of National Health and Welfare, Ottawa

Vice-Presidents

Miss Isabel Black, Director of Public Health Nursing, Department of Health, Toronto

Dr. Andrew J. Rhodes, Director, School of Hygiene, University of Toronto, Toronto

Dr. R. Cadham, Medical Officer of Health, Winnipeg

Honorary Secretary

Dr. G. W. O. Moss, Deputy Medical Officer of Health, Toronto

Honorary Treasurer

Dr. W. Mosley, Director, East York-Leaside Health Unit, Toronto

Editor, Canadian Journal of Public Health

Dr. R. D. Defries, Director-Emeritus and Consultant, Connaught Medical Research Laboratories, University of Toronto, Toronto

We would further submit the following names as *Elected Members* to the Executive Council of the Association.

Dr. J. H. Baillie, Toronto; Dr. A. R. J. Boyd, Toronto; Dr. G. D. W. Cameron, Ottawa; Dr. Lloyd Clarke, Hamilton; Dr. M. R. Elliott, Winnipeg; Dr. A. R. Foley, Quebec; Dr. J. A. Gayton, Vancouver; Dr. Jean Grégoire, Quebec; Dr. A. Groulx, Montreal; Miss Jean Leask, Ottawa; Miss Phyllis Lyttle, Halifax; Dr. C. E. Maddison, Saint John; Dr. G. K. Martin, Toronto; Dr. V. L. Matthews, Regina; Mrs. Dorothy McPhail, Edmonton; Dr. J. A. Melanson, Fredericton; Dr. Leonard Miller, St. John's; Dr. B. J. O'Meara, Charlottetown; Mr. Christian Smith, Regina; Dr. E. S. Orford Smith, Edmonton; Dr. R. B. Sutherland, Toronto; Dr. J. Sylvestre, Quebec; Dr. J. A. Taylor, Victoria; Dr. A. B. Valois, Montreal; Mr. W. M. Walkinshaw, Toronto; Dr. G. R. Walton, Regina; Miss J. Williamson, Winnipeg; Dr. Gordon Wride, Ottawa

The following names have been submitted by the sections as *chairmen of the sections* of the Association, and thus members of the Executive Council.

Medical Officers — Dr. L. A. Clarke, Hamilton

Environmental Sanitation — Mr. R. McQuillan, Toronto

Veterinary Medicine — Dr. N. Fish, Guelph

Epidemiology — Dr. G. E. Large, Toronto

Vital and Health Statistics — Dr. A. H. Sellers, Toronto

Public Health Nutrition — Miss Marilyn Trenholme, Toronto

Public Health Nursing — Miss Jessie Williamson, Winnipeg

Health Education — Mr. M. E. Palko, Ottawa

Dental Public Health — Dr. H. S. Grey, Toronto

Laboratory — Dr. T. E. Bynoe, Ottawa

Occupational Health — Dr. R. B. Sutherland, Toronto

Mental Health — Dr. C. E. Robinson, Toronto

Medical Care — Dr. John Hastings, Toronto

The new by-laws name the immediate *three Past-Presidents* as members of Council. These are: Dr. Jules Gilbert, Montreal; Dr. J. S. Robertson, Halifax; Dr. F. B. Roth, Regina.

Other Members of Council are *Three Provincial Representatives* appointed by each Provincial Branch, Division or Association.

The Executive Council has appointed the *Executive Director*, Dr. E. J. Young, Toronto, and the *Honorary Solicitor*, Mr. R. E. Curran, to serve as members of Council.

REPORT OF THE COMMITTEE ON RESOLUTIONS

W. G. Brown, M.D., D.P.H., Chairman	
Miss Jean Leask	Mr. W. J. Chisholm
Dr. E. S. Orford Smith	Dr. A. Groulx

1. WHEREAS the delegates to this convention have been received with generous hospitality and friendship; AND WHEREAS the delegates to this convention are most appreciative of the co-operation and assistance extended by the Province of Saskatchewan and the City of Regina; THEREFORE BE IT RESOLVED that the Canadian Public Health Association, meeting in convention in the City of Regina on the 6th, 7th and 8th days of June 1961 expresses its deep appreciation to the Honourable, the Minister of Public Health and the Government of the Province of Saskatchewan and to His Worship, the Mayor and the City Council of the City of Regina; AND BE IT FURTHER RESOLVED that the Canadian Public Health Association also expresses its sincere thanks to the citizens of the Province and the City who have made this convention possible.
2. WHEREAS it is apparent to all delegates to this convention that the efficient organization of all arrangements may be properly attributed to the efforts of the Saskatchewan Branch of the Canadian Public Health Association; THEREFORE BE IT RESOLVED that the Canadian Public Health Association meeting in convention in the City of Regina on the 6th, 7th and 8th days of June 1961 expresses its deep gratitude to all the members of the Saskatchewan Branch and particularly to all those who served on convention committees for their evident co-operation and excellent organization.
3. WHEREAS the scientific sessions of the convention have depended upon many contributors of papers; AND WHEREAS the delegates to this convention appreciate that the preparation of these papers has demanded much time and thought on the part of those who have generously participated in the program; THEREFORE BE IT RESOLVED that the Canadian Public Health Association, meeting in convention in the City of Regina on the 6th, 7th, and 8th days of June 1961 extends its grateful thanks to all who have made the scientific sessions both interesting and informative.

4. WHEREAS the exhibitors at this convention have contributed significantly to the success and benefit of this meeting; AND WHEREAS the high calibre of all exhibits expresses the interest of the exhibitors in the broad field of Public Health; AND WHEREAS those in attendance at the exhibits have without exception extended most courteous and co-operative assistance;

THEREFORE BE IT RESOLVED that the Canadian Public Health Association meeting in convention in the City of Regina on the 6th, 7th, and 8th days of June 1961 expresses its sincere thanks to the exhibitors.

5. WHEREAS tooth decay, by affecting the vast majority of people in Canada, has come to be recognized as one of the major public health problems of our time; AND WHEREAS studies covering a period of over thirty years under the widest variety of controlled conditions have marked fluoridation as one of the most widely studied of public health procedures; AND WHEREAS such studies reveal that fluoride in the recommended amount of one part fluoride to one million parts of water is safe from any ill effect and is effective in reducing tooth decay by approximately two thirds; AND WHEREAS fluoridation benefits children and the benefits extend into adult life;

THEREFORE BE IT RESOLVED that the Canadian Public Health Association meeting in convention in the City of Regina on the 6th, 7th, and 8th days of June 1961 reiterates its recommendation to the people of Canada that communities having a public water supply adopt a procedure for adjusting the fluoride content of their water supply to a level considered optimal for the maximum prevention of dental decay and for this purpose seek competent dental, medical, and engineering advice.

6. WHEREAS the Canadian Public Health Association has endorsed fluoridation of community water supplies as a proven effective and desirable public health measure; AND WHEREAS in some instances the instituting of fluoridation of community water supplies may depend upon public knowledge and understanding;

THEREFORE BE IT RESOLVED that the Canadian Public Health Association meeting in convention in the City of Regina on the 6th, 7th, and 8th days of June 1961 recommends that all Departments of Public Health continue, or initiate, appropriate, comprehensive and informative educational programs.

7. WHEREAS effective fluoridation requires that the fluoride concentration in water be maintained at a constant optimal level; AND WHEREAS the maintenance of a constant optimal level is difficult to achieve by the addition of fluoride tablets or concentrated fluoride solutions to household supplies;

THEREFORE BE IT RESOLVED that the Canadian Public Health Association meeting in convention in the City of Regina on the 6th, 7th, and 8th days of June 1961 does not consider that the use of fluoride tablets or of concentrated fluoride solutions, in the light of present knowledge, can be considered to be a substitute for communal water fluoridation.

8. WHEREAS there is considerable evidence that secondary attacks of rheumatic fever can be prevented by chemoprophylactic means; AND WHEREAS rheumatic fever prophylaxis programs have been established in several provinces in Canada;
THEREFORE BE IT RESOLVED that the Canadian Public Health Association meeting in convention in the City of Regina on the 6th, 7th, and 8th days of June 1961 endorses the desirability of establishing or extending programs of this kind for the benefit of all persons who have a history of rheumatic fever.
9. WHEREAS adequate planning and preparation to deal with the effects of natural disasters and of enemy attack is the responsibility of federal, provincial, and municipal governments; AND WHEREAS such disasters or attack constitute a serious threat to the public health; AND WHEREAS stability and continuity in the organization and training of emergency health services require the leadership of paid and trained personnel; AND WHEREAS public health officers and their staffs are uniquely equipped to appreciate the overall health aspects of the problem and to organize the total community health resources and to use the techniques of public education;
THEREFORE BE IT RESOLVED that the Canadian Public Health Association meeting in convention in the City of Regina on the 6th, 7th, and 8th days of June 1961 encourages health departments to initiate joint planning with other officials or voluntary agencies and with professional groups with health responsibilities to reduce the adverse health effects of such emergency conditions.
10. WHEREAS the Prime Minister of Canada has announced the establishment of a Royal Commission to enquire into health services; AND WHEREAS the Canadian Public Health Association has a vital interest in the health of the Canadian people;
THEREFORE BE IT RESOLVED that the Canadian Public Health Association meeting in convention in the city of Regina on the 6th, 7th, and 8th days of June 1961 authorizes its Executive Committee to prepare and present a submission to this Royal Commission should such an opportunity present.

*Abridged Article***A NOTE ON TRENDS IN PERTUSSIS MORTALITY AND MORBIDITY IN ONTARIO**CAROL BUCK,¹ M.D., Ph.D., D.P.H.

IN 1956 (1), the writer published a short note on the trends of pertussis mortality and morbidity in Ontario before and after the beginning of widespread pertussis immunization in 1944. From 1944 to 1953 the rates of morbidity and to a lesser extent the rates of mortality were below the levels predicted by projecting the trends established during the period 1924 to 1943.

It was suggested then that the less marked change in mortality might be related to the fact that the immunization program, although extensive, was not reaching enough infants at the earliest months of life, the period of highest case-fatality for whooping cough.

Since morbidity and mortality rates for an additional five years are now available, the charts published in 1956 can be extended to include this recent period in an

effort to determine what further progress, if any, has been made.

The accompanying graph gives rates of pertussis morbidity and mortality from 1924 to 1958 with trend lines based on the period 1924 to 1943.

It is clear from this graph that the downward departure of mortality rates from the pre-immunization trend line which was observed to some degree between 1944 and 1953 has been greatly accentuated in the five-year period from 1954 to 1958.

The trend of morbidity, however, in the most recent five-year period differs little from that observed between 1944 and 1953 when morbidity rates were already at a level well below those predicted by the pre-immunization trend line.

Possible explanations for the continued fall in mortality without any further decrease in morbidity may be advanced:

(1) That although the proportion of infants and children immunized against pertussis has not changed appreciably since 1953, the age at which immunization is begun has steadily shifted toward the early months of life, where protection against death will be greatest.

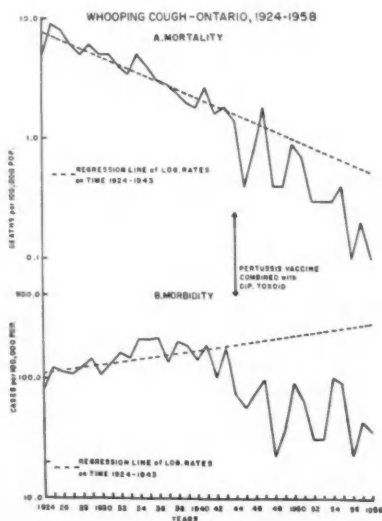
(2) That the mortality fall is the result of improved treatment of pertussis with chloramphenicol.

Either or both of these explanations may be correct. It is difficult to evaluate them, however, without more readily available data concerning the frequency of immunization by narrow age groups and the trend of use of antibiotic therapy for pertussis.

A third possibility is that a recent increase in the proportion of notified cases of pertussis could have obscured a decrease in incidence. This, however, does not seem at all likely.

REFERENCE

1. Buck, C.: *Canad. J. Pub. Health*, 1956, 47: 281.



¹Department of Psychiatry and Preventive Medicine, The University of Western Ontario, London, Ontario.

Nova Scotia Branch Canadian Public Health Association

ANNUAL MEETING PROGRAM

SEPTEMBER 27 and 28, 1961

ISLE ROYALE HOTEL, SYDNEY, N.S.

TUESDAY, SEPTEMBER 26

- 4.00 p.m.—Executive Meeting
7.30 p.m.—9.00 p.m.—Registration
8.00 p.m.—Welcome Party

WEDNESDAY, SEPTEMBER 27

GENERAL SESSION

- 9.00 a.m.—Welcome: Mr. W. J. CHISHOLM, President, Nova Scotia Branch, MAYOR RUSSELL URQUHART, Mayor of Sydney, Dr. J. S. ROBERTSON, Deputy Minister of Health.
9.15 a.m.—Business Meeting, Nova Scotia Branch
9.45 a.m.—Public Relations and Public Health
Dr. J. S. Robertson, Deputy Minister of Health
10.15 a.m.—Dangers from Antibiotics and Certain Other Food Additives in Human Food
Dr. W. H. le Riche, Professor of Public Health, School of Hygiene, University of Toronto
11.00 a.m.—A Brief Clinical Review of Rehabilitation
Dr. Arthur Shears, Medical Director, Nova Scotia Rehabilitation Center
11.30 a.m.—WHAT'S NEW?: Recent Advances in Food Service Training
Miss J. Rae, Nutrition Division, Nova Scotia Department of Health
Family Life Program
Sister St. John Avellino, St. Joseph's School, Mabou
Changing Patterns in Defence Planning
Miss N. Taylor, Nurse Consultant, Civil Defence, Nova Scotia

WEDNESDAY, SEPTEMBER 27

NUTRITION SECTION

Chairman: Miss Hazel Roland

- 2.00 p.m.—WORKING WITH PEOPLE: Working with Parents
Miss Genevieve Gillis, Public Health Nutritionist, Sydney, N.S.
Working with People with Special Diet Problems
Miss Margaret Sherry, Public Health Nutritionist, Dartmouth, N.S.
Working with Older People
Miss Lorna Seaman, Public Health Nutritionist, Dartmouth, N.S.

WEDNESDAY, SEPTEMBER 27

SANITATION SECTION

Chairman: Mr. Michael MacPhee

- 2.00 p.m.—Panel Discussion: Mastitis and the Raw Milk Supply
Chairman: Mr. Paul MacDonnell, Sanitary Inspector
Participants: Mr. John MacLean, Sanitary Inspector; Mr. Kennedy, Veterinarian; Mr. McKeen, Manager, Cape Breton Dairymen's Co-op Dairy

- 3.25 p.m.—Machine Dishwashing and Sanitizing**
Mechanics—Mr. Mahoney, Hobart Representative
Gas Water Heating—Burkay Representative

WEDNESDAY, SEPTEMBER 27
REHABILITATION SECTION MEETING

Chairman: Mr. F. G. Wellard

THURSDAY, SEPTEMBER 28
GENERAL SESSION

- 9.00 a.m.—Panel Discussion: Maternal and Infant Care for the Future: How Shall We Plan It?**
Chairman: Dr. H. Colford, Director, Child and Maternal Health, Department of Health, N.S.
Participants: Dr. A. R. Gaum, Sydney, N.S.; Dr. N. K. MacLennan, Sydney, N.S.; Dr. S. C. Robinson, Halifax, N.S.
- 10.00 a.m.—Prevention of Mental Disease in Children**
Dr. Eric Cleveland, Executive Director, Fundy Mental Health Clinic, Fundy, N.S.
- 10.45 a.m.—Modern Concepts in Rheumatic Fever**
Dr. Lea Steeves, Director, Postgraduate Division, Dalhousie Public Health Clinic
- 11.15 a.m.—Public Health Aspects of Infectious Jaundice**
Dr. D. G. McCurdy, Administrator, Consultant Services, Nova Scotia Department of Public Health
- 11.45 a.m.—WHAT'S NEW?: Housing Inspection and Public Health**
Mr. W. J. Chisholm, Sanitary Inspector, Cape Breton Island
The Role of Glucagon in Diabetes
Dr. D. J. Topping, Vice-President, Nova Scotia Branch

THURSDAY, SEPTEMBER 28
NOVA SCOTIA THORACIC SOCIETY

- 2.00 p.m.—Vaccines for the Prevention of Influenza-like Infections and Colds**
Dr. R. L. Ozere, Associate Professor of Preventive Medicine and Bacteriology, Dalhousie University, Halifax, N.S.
- The Ulcerating Tuberculous Hilar Gland**
Dr. J. E. Hiltz, Medical Superintendent, Nova Scotia Sanatorium, Kentville, N.S.
- The Place of Pulmonary Function Testing in Chronic Lung Disease**
Dr. R. C. Young, Medical Superintendent, Point Edward Hospital, Sydney, N.S.
- The Fate of 1,300 Patients Two to Ten Years after undergoing Pulmonary Resection at the Nova Scotia Sanatorium**
Panel—Sanatorium Staff—To be announced.
- What's Your Diagnosis?—X-Ray Quiz**
Dr. Frank Misener, Nova Scotia Sanatorium, Kentville, N.S.
Business Meeting

THURSDAY, SEPTEMBER 28
NUTRITION SECTION

- 2.00 p.m.—Teaching Nutrition in the Pre-natal Clinic**
Miss Elizabeth MacKinnon, Public Health Nutritionist, City Department of Health, Halifax, N.S.
- 3.00 p.m.—Panel Discussion: Food Buying with Low Income Families**
Chairman: Miss Viola Johnstone, Public Health Nutritionist, Pictou, N.S.
Participants: Nutritionist: Miss Elizabeth MacLellan, Public Health Nutritionist, Yarmouth, N.S. Other participants to be announced

**THURSDAY, SEPTEMBER 28
SANITATION SECTION****2.00 p.m.—Panel Discussion: School Sanitation**

Chairman: Mr. Beryl Doane, Sanitary Inspector

Participants: Mr. R. Donald MacKay, Director of Environmental Hygiene, Department of Public Health

Mr. A. Ferguson, Municipal Officer, Cape Breton County Municipal School Board

3.30 p.m.—Panel Discussion: Suburban Planning and Public Health

Chairman: Dr. D. G. McCurdy, Administrator, Consultant Services, Department of Public Health

Participants: Mr. F. Beaton, Warden, Cape Breton County

Mr. D. J. Bird, Consultant in Community Planning, Department of Municipal Affairs

Mr. Gerald Lewis, Nova Scotia Housing Commission

Ontario Public Health Association**12th ANNUAL MEETING PROGRAM****OCTOBER 2, 3 and 4, 1961****KING EDWARD SHERATON HOTEL, TORONTO****MONDAY, OCTOBER 2, 8.30 a.m.****8.30 a.m.**—Registration, Mezzanine Foyer**MONDAY, 9.30 a.m.****MINISTER'S CONFERENCE FOR MEDICAL OFFICERS OF HEALTH****Crystal Ballroom**

(General Membership Welcome)

Presiding: W. G. BROWN, M.D., Deputy Minister of Health for Ontario

9.30 a.m.—Address of Welcome

HON. MATTHEW B. DYMOND, M.D., Minister of Health for Ontario.

9.45 a.m.—Presentations by Staff of the Ontario Department of Health and Discussion Period**11.00 a.m.—A Symposium on Public Health Control of Radiation Injury in Nuclear War**

Presented by the Department of National Health and Welfare

Chairman: DR. A. C. HARDMAN, Chief Emergency Health Services, Department of National Health and Welfare

(i) Nuclear Weapons Effects—The Agent

DR. E. E. MASSEY, Defence Research Scientific Officer, Defence Research Board

(ii) Population Response to Weapon Radiation—The Host

F. C. PACE, M.D., Special Weapons Consultant, Department of National Health and Welfare

MONDAY, 12.30 p.m.**LUNCHEON****Sheraton Room****12.30 p.m.**—Presiding: A. V. HALL, M.D., President, Ontario Public Health AssociationAddress: **Oral Poliomyelitis Vaccination**

A. J. RHODES, M.D., Director, School of Hygiene, University of Toronto

MONDAY, 2.00 p.m.

MINISTER'S CONFERENCE FOR MEDICAL OFFICERS OF HEALTH

Crystal Ballroom

(General Membership Welcome)

Presiding: W. G. BROWN, M.D., Deputy Minister of Health for Ontario

2.00 p.m.—Symposium on Public Health Control of Radiation Injury in Nuclear War

(iii) **Fallout and the Food Chain—The Environment**

DR. B. G. MIGICOVSKY, Chief of Biochemistry, Animal Research Institute, Canadian Department of Agriculture

(iv) **Health Services in Nuclear Disaster—The Control**

DR. A. C. HARDMAN, Chief Emergency Health Services, Department of National Health and Welfare

(v) **Panel Discussion**

Questions from the Floor

TUESDAY, 9.30 a.m.

FIRST GENERAL SESSION

Crystal Ballroom

9.30 a.m.—Panel on Communications in Public Health

Chairman: WM. MOSLEY, M.D., D.P.H., Professor of Public Health, School of Hygiene, and Director, East York-Leaside Health Unit

Communications in 1961—MR. ARTHUR KNOWLES, Assistant Director, Department of Extension, University of Toronto, and Executive-Secretary, Metropolitan Educational Television Association

Twenty-Seven Years on Radio—D. V. CURREY, M.D., D.P.H., Consultant, St. Catharines-Lincoln Health Unit, St. Catharines, Ontario

Public Health on Television—B. T. DALE, M.D., D.P.H., Director and Medical Officer of Health, Wellington County Health Unit, Fergus, Ontario

The Impact of Exhibits—J. ALLISON, M.D., Assistant Executive-Secretary, Ontario Medical Association

Graphic Media for Local Health Departments—E. R. LANGFORD, M.D., D.P.H., Director and Medical Officer of Health, Kenora District Health Unit, Kenora, Ontario

The Newspaper—JOHN HOWIE, M.D., C.M., D.T.M., D.P.H., Director and Medical Officer of Health, Metropolitan Windsor Health Unit, Windsor, Ontario

More Than Public Relations—W. R. MITCHELL, D.V.M., Veterinary Extension Officer, Ontario Veterinary College, Guelph, Ontario

Reaction Panel

R. KING, M.D., D.P.H., Director and Medical Officer of Health, York County Health Unit, Newmarket, Ontario

MISS MARION WOODSIDE, B.S.N., P.H.N., Lecturer, Public Health Nursing, School of Nursing, University of Toronto

J. W. LAWRENCE, D.D.S., D.D.P.H., Director of Dental Health, Scarborough Department of Health, Scarborough, Ontario

IAN GLENROY, D.V.M., D.V.P.H., Director of Food Control, City of Toronto Department of Health, Toronto, Ontario

MR. MICHAEL E. PALKO, M.P.H., Health Educator, Department of National Health and Welfare, Office of the Director of Information Services, Ottawa, Ontario

MR. JOHN MULLINEUX, Chief Sanitary Inspector, Stormont, Dundas and Glengarry Health Unit, Cornwall, Ontario

TUESDAY, 11.30 a.m.

ANNUAL MEETING

OF THE ONTARIO PUBLIC HEALTH ASSOCIATION

Crystal Ballroom

TUESDAY, 2.00 p.m.**JOINT SECTION MEETING "A"**

(Health Officers', Public Health Nursing, Public Health Education and Dental Public Health Sections)

Crystal Ballroom

Presiding: A. E. THOMS, M.D., Medical Officer of Health and Director,
Leeds and Grenville Health Unit, Brockville, Ontario

2.00 p.m.—Survey on the Need for Home Care Services in Wellington County

MRS. DOROTHY MUMBY, Project Co-ordinator, Fergus, Ontario

2.30 p.m.—Panel Discussion:**The Supervision and Rehabilitation of Patients Discharged from Ontario Hospitals****Participants:**

DR. B. H. MCNEEL, Chief, Mental Health Division, Department of Health for Ontario

MR. KENNETH L. HAWKINS, Director, Division of Rehabilitation, Department of Health for Ontario

DR. C. A. CLELAND, Superintendent, Ontario Hospital, St. Thomas.

MR. W. F. J. ANDERSON, Executive Director, Canadian Mental Health Association

A Medical Officer of Health and a Public Health Nurse (to be named).

TUESDAY, 2.00 p.m.**ENVIRONMENTAL HYGIENE SECTION****Mayfair Room**

Presiding: MR. G. PHILLIPS, C.S.I.(C), Dufferin County Health Unit

2.00 p.m.—Significant Features and Interpretation in the Chemical Sampling of Water

MR. LARRY SOUTH, District Engineer, Ontario Water Resources Committee

2.45 p.m.—The Potential Present and Future Role of the Health Inspector in the Emergency Measures Organization

MR. T. ELLIOTT, C.S.I.(C), M.R.S.H., Health Department, North Bay, Ontario

3.30 p.m.—What Does the Future Hold for the Sanitary Inspector?**A Symposium**

(i) **Future Trends in Certification and Possible Advanced Certification**
WM. MOSLEY, M.D., C.M., D.P.H., Medical Officer of Health and Director, East York-Leaside Health Unit

(ii) **Present and Potential Future Training Courses**
A. S. O'HARA, F.R.S.H., Secretary, Environmental Sanitation Training Centre, Ontario Department of Health

(iii) **The Health Inspector Looks to the Future**
J. A. POWELL, C.S.I.(C), Chief Sanitary Inspector, Halton County Health Unit

TUESDAY, 2.00 p.m.**VETERINARY PUBLIC HEALTH SECTION****Room 216**

Presiding: O. C. RAYMOND, D.V.M., D.V.P.H., Director, Division of Food Control and Sanitation, Brant County Health Unit, Brantford, Ontario

2.00 p.m.—Communications

W. R. MITCHELL, D.F.C., D.V.M., D.V.P.H., Veterinary Extension Officer, Ontario Veterinary College, Guelph, Ontario

2.30 p.m.—The World Health Organization

EARL C. CHAMBERLAYNE, D.V.M., D.V.P.H., Communicable Diseases Branch, World Health Organization, Washington 6, D.C.

3.00 p.m.—Zoonoses

LARS KARSTEAD, D.V.M., M.S., Ph.D., Division of Zoonosis and Diseases of Wild Life, Ontario Veterinary College, Guelph, Ontario

3.30 p.m.—Discussion

TUESDAY, 6.30 p.m.
PRESIDENT'S RECEPTION

Reception Room

TUESDAY, 7.30 p.m.
ANNUAL DINNER AND PRESENTATION OF HONOURS

Crystal Ballroom

Presiding: DR. A. V. HALL, President, Ontario Public Health Association
Address:

REV. HARVEY C. HAHN, D.D., Dayton, Ohio

WEDNESDAY, OCTOBER 4, 9.30 a.m.
HEALTH OFFICERS' SECTION

Hunting Room

Presiding: DR. A. E. THOMS, Medical Officer of Health and Director, Leeds and Grenville Health Unit, Brockville, Ontario

9.30 a.m.—Formula Diets in Obesity and Other Clinical Conditions

E. W. MCHENRY, M.A., Ph.D., Professor, Department of Nutrition, School of Hygiene, University of Toronto

10.15 a.m.—The Medical School Looks at Public Health

DR. G. H. ETTINGER, Dean of the Faculty of Medicine, Queen's University, Kingston, Ontario

11.00 a.m.—The Interpretation of Laboratory Results in Infectious Diseases

DR. L. E. ELKERTON, Director, Provincial Laboratories, Toronto

WEDNESDAY, 9.00 a.m.
PUBLIC HEALTH NURSING SECTION

Sheraton Room

Presiding: E. M. SCOTT, R.N., Director of Public Health Nursing, Department of Health, London, Ontario

9.00 a.m.—Principles of In-Service Education

MURIEL UPRICHARD, M.A., Ph.D., Associate Professor, School of Nursing, University of Toronto

10.00 a.m.—Group Participation

11.00 a.m.—Reports and Discussion

11.45 a.m.—Summary by DR. UPRICHARD

WEDNESDAY, 9.30 a.m.
JOINT SECTION MEETING "C"

(Environmental Hygiene and Veterinary Public Health Sections)

Mayfair Room

Presiding: O. C. RAYMOND, D.V.M., D.V.P.H., Director, Division of Food Control and Sanitation, Brant County Health Unit, Brantford, Ontario

MR. G. PHILLIPS, C.S.I.(C), Dufferin County Health Unit

9.30 a.m.—Food and Beverage Vending Machines

MR. DONALD STOREY, Baker Vending Services Limited, 1245 Caledonia Road, Toronto 19, Ontario

10.15 a.m.—Food Control and Sanitation in Respect to Fairs, Carnivals, Circuses, etc.

(i) Representing Larger Municipalities

MR. T. NEILL, C.S.I.(C), Supervisor of Food Control, Department of Public Health, City of Toronto

(ii) Representing Smaller Municipalities

MR. JACK ELLEY, C.S.I.(C), Elgin-St. Thomas Health Unit

11.00 a.m.—News, Views, Plans, Etc.

Representative of the Provincial Department Environmental Sanitation Branch

WEDNESDAY, 9.30 a.m.

HEALTH EDUCATION SECTION

9.30 a.m.—The Health Education Program at the Federal Level

MR. M. PALKO, Health Educator, Information Services Division,
Department of National Health and Welfare

10.00 a.m.—Inter-Agency Communications at the Local Level

Chairman: ARTHUR V. PIGOTT, Director, Canadian Association for Adult
Education

Panel Members:

DR. G. WATT, D.P.H., Medical Officer of Health, Etobicoke Department
of Health

MRS. JAMES E. THOMAS, Chairman, Thorold Township Community
Safety Council

MISS MURIEL DOWNEY, P.H.N., Ontario Society for Crippled
Children

MISS OLIVE ZERON, Executive Secretary, Social Planning Council,
Metropolitan Toronto

MISS JEAN GOOD, Executive Director, Ontario Society for Ageing

MR. J. C. MCNEILL, M.P.H., Health Educator, Ontario Tuberculosis
Association

MR. MAURICE J. GRIMES, Executive Director, Ontario Division,
Canadian Cancer Society

WEDNESDAY, 9.30 a.m.

DENTAL PUBLIC HEALTH SECTION

Room 216

9.30 a.m.—Periodontics in Relation to Dental Public Health and Preventive Dentistry.

C. H. M. WILLIAMS, D.D.S., B.Sc.D., Professor of Periodontics and
Head of the Department, Faculty of Dentistry, University of Toronto,
Toronto, Ontario

WEDNESDAY, 2.00 p.m.

SECOND GENERAL SESSION

Sheraton Room

2.00 p.m.—Theme: The Role of Public Health in Emerging Countries

Chairman: MR. JOHN ROBSON, C.S.I.(C), Chief Sanitary Inspector, Ontario
County Health Unit, Pickering, Ontario

Participants:

DR. J. E. F. HASTINGS, Associate Professor, School of Hygiene,
University of Toronto.

DR. B. PRIMEAU, Medical Consultant and Chief, Medical Rehabilitation
and Disability Advisory Service, Department of National Health
and Welfare, Ottawa

Association News

On May 29 at the Biennial Meeting of the National Council of Jewish Women of Canada, two Gerontological Fellowships were presented to members of the Canadian Public Health Association. Dr. G. W. O. Moss, Deputy Medical Officer of Health of the City of Toronto and Honorary Secretary of the Canadian Public Health Association, was awarded his second fellowship. Dr. Moss is the only applicant who has been given a second award for observation of geriatrics programs. He plans to visit nursing homes for the aged in the midwestern United States.

Miss Margaret Cahoon, Associate in Health Education, School of Hygiene, University of Toronto, was also awarded a Gerontological Fellowship for the study of programs for the older adult and the aged in Western Europe and the British Isles during July and August.

C.S.I.(C.) Examinations

The following candidates, all of Ontario, were granted the Certificate in Sanitary Inspection (Canada) this June: Robert Kenneth Carleton, Martial Leo Charette, Clifford Gregory Clark, Gary Francis Culhane, Phillip John Drinnan, Douglas Ross Fralick, William John Hogle, Bert Morley Howden, Leonard Edward Arthur King, Andre Regis la France, Joseph Alexander Lancot, Ernest George David Leeds, Owen James Lemyre, John Howard Malcolm, Eildert Gerrit Meyer, Willis John Morley, Thomas Michael Murphy, John Manson Pelton, Walter John Brian Pett, James Wayne Pollock, Howard William Schaub, Stanley Wayne Thomson, Alex Armer Timmins. Certificates were also granted to Mervin Lloyd George Colter, Virden, Manitoba; Andrew Gorun, Winnipeg, Manitoba; Kenneth Franklin Hawkins, St. Boniface, Manitoba; Walter Peter Keryluk, Meleeb, Manitoba; Donald James MacMillan, Sydney, N.S.

Saskatchewan Branch

At the recent annual meeting of the Saskatchewan Branch the following executive was elected: *Honorary President* — Hon. J. Walter Erb, Health and Welfare Building, Regina; *President* — Dr. Alexander Robertson, University of Saskatchewan, Saskatoon; *Past President* — Dr. H. E. Robertson, Provincial Laboratory, Regina; *Vice-President* — William Kempa, 1900 McIntyre St., Regina; *Secretary-Treasurer* — E. L. Abbott, Health and Welfare Building, Regina. *Committee Members*: Miss Vera Spencer, Stanley Rands, Dr. M. S. Acker, Val Cloarec, J. A. Mahon, Dr. Robert Bradley, Mrs. S. E. Kerr, S. J. Frew, E. H. Anaka, Dr. E. R. Simpson, A. V. Kipling, Dr. G. R. Walton.

Ontario Public Health Association

At the meeting of the Board of Directors of the Ontario Public Health Association on June 16, Dr. G. L. Anderson reported on the activities of the Program Committee for the annual meeting on October 2, 3, and 4. The Program of this meeting appears in this issue.

Dr. A. Bull was directed to proceed with the formation of the Legislative Committee.

Dr. M. E. Jarrett reported on the proposed portable pension plan. The Pensions Committee was requested to continue its study of the proposals and to meet with the Legislative Committee at the annual meeting in October.

The winners of the first prize in the Health Section at the Science Fair are being invited to display their exhibit at the Ontario Public Health Association meeting on Tuesday, October 2.

Dr. A. V. Hall, Mr. J. Robson, and Dr. A. M. Breuls were appointed to the Steering Committee of the Canadian Public Health Association which is planning the 1962 Annual Meeting in Toronto of the C.P.H.A. and the O.P.H.A.

Prince Edward Island

The Ninth Annual Meeting of the New Brunswick-Prince Edward Island Branch was held in Charlottetown on June 1 and 2. A very comprehensive and representative program was presented. The sessions began with an excellent report by our Executive Director, Dr. E. J. Young. Much discussion arose from his suggestion that the different Maritime meetings be held consecutively which would allow members of the national body to attend the branch meetings and also permit a block of lectures to be heard at each branch. This is the method followed by the divisional organizations of the Canadian Medical Association and has much to commend it.

On June 1 Mr. Stanley Spicer, Director of the Adult Education and Fitness Branch, Department of Education, New Brunswick, spoke on "Recreation and Physical Fitness". A panel was presented "Sound Mental Health in Home and Community". The moderator was Travis Cushing, Saint John, N.B., and the members were Miss Lois O. Smith, Lancaster,

N.B., Mr. Alan Spicer, Department of Health, N.B., Mr. Stanley Matheson, Department of Health, N.B., and Dr. F. Houston, Moncton, N.B. Mr. Gilbert Delong, Assistant Sanitary Engineer, New Brunswick, gave an informative paper "Sewage Oxidation Ponds". Prince Edward Island has pioneered these ponds in the Maritime area.

At the Annual Dinner, greetings were offered by the Premier of the Province, The Honourable Walter R. Shaw, by Councillor James Haslam on behalf of the Mayor, and by Mr. W. T. Chisholm, President of the Nova Scotia Branch. The guest speaker was Dr. Joseph A. McMillan of Charlottetown and his address was "Socialism, and the End of the Modern Era".

On June 2 Dr. B. Primeau of Ottawa presented an account "Emergency in Morocco" which was accompanied by a National Film Board movie. Dr. Eric Found, Director of T.B. Control in Prince Edward Island gave the closing address "The Role of the Public Health Nurse in T.B. Case Finding".

News Notes

International

Establishment of the annual Bronfman Prizes for Public Health Achievement, a new series of major awards to honour "outstanding current creative work leading directly to improved health for large numbers of people", was recently announced by the American Public Health Association. The prizes have been established with a grant from the Samuel Bronfman Foundation, Inc.

From one to three prizes will be awarded annually, depending on availability of suitable candidates. Each prize will consist of a \$5,000 cash award and a commemorative symbol. The first awards will be announced and presented during the Association's 89th annual meeting in Detroit November 13-17.

The Bronfman Prizes will be awarded for work of particular effectiveness in applying newer scientific knowledge to community health rather than for achievements in basic or laboratory research. In honouring application rather than discovery of new scientific knowledge, the Foundation and the Association hope to increase understanding and appreciation of public health practice.

National

It has recently been announced by the Honourable J. Waldo Monteith, Minister of National Health and Welfare, that Dr. Pierre Jobin of Quebec City has been appointed Medical Consultant to the Royal Commission on Health Services. Currently chairman of the Department of Anatomy, Laval University, Dr. Jobin will be responsible for directing research studies into all phases of the Commission's work as it relates to the medical, dental, nursing, pharmaceutical, and other health professions. He will also be responsible for research into training programs which will be necessary to qualify personnel for the provision of a high standard of health care. Dr. Jobin will also act as liaison between the Commission and the various health professions.

School of Hygiene, University of Toronto.

The following promotions have been made, effective with the start of the new academic session, July 1, 1961: To the rank of Professor (full-time), Miss Eugenie M. Stuart (Department of Hospital Administration),

and Dr. Lachlan W. Macpherson (Department of Microbiology). To the rank of Associate Professor (part time), Dr. R. B. Sutherland (Department of Physiological Hygiene). To the rank of Assistant Professor (part-time), Dr. E. Mastromatteo (Department of Physiological Hygiene). To the rank of Lecturer (full-time), Mrs. P. L. Seyfried (Department of Microbiology).

Dr. T. Yamamoto (Ph.D., Yale) has been appointed Research Associate in charge of Electron Microscopy. This new appointment has been made possible by the National Health Grants Programme and the Bickell Foundation.

The School of Hygiene, University of Toronto, has received a grant of \$40,800 under the National Health Grants Programme, to establish new graduate courses in medical virology. The School at present offers training in Virology to physicians and scientists through the Diploma in Bacteriology, M.A., and Ph.D. programs. The new grant will enable the School to appoint additional staff and to offer in September 1962 a greatly expanded program of formal instruction in medical virology, covering also the academic aspects of the subject.

Medical College Secretariat

Thirty-five of every hundred doctors now commencing practice in Canada are graduates of foreign medical schools according to a statement by Dr. G. H. Ettinger, Dean of the Medical College, Queen's University, and President of the Association of Canadian Medical Colleges. Dr. Ettinger cited the shortage of physicians as one reason for the Association's decision to establish a secretariat in Ottawa for its twelve member colleges. Dr. Wendell MacLeod, Dean of the new Medical College, University of Saskatchewan, will head the new secretariat as Executive Secretary of the Association, commencing on January 1, 1962.

Advice on the expansion of medical education facilities will be given by the Secretariat to provincial departments of education and health. The Secretariat will also work to establish accreditation of Canadian medical schools by Canadian standards.

Dr. H. K. Brown, Dental Consultant, Department of National Health and Welfare, received the honorary degree of Doctor of Laws at the medical-dental convocation of the University of Alberta, June 2. Dr. Brown was the special convocation speaker. Dr. Brown was honoured also on June 3 by being made a Fellow of the International College of Dentists at the Canadian Dental Association Convention held at Saskatoon.

British Columbia

Dr. G. Bonham, the newly appointed Director of the Cariboo Health Unit at Prince George, has been awarded the Donald Fraser Memorial Medal for 1961. This award is made annually to the most outstanding student at the University of Toronto School of Hygiene.

The spring and early summer were a busy period for provincial health services staffs moving into new accommodation. At Prince Rupert, Dr. G. F. Amyot, Deputy Minister of Health, opened a new civic health center on May 31; Dr. J. A. Taylor, Deputy Provincial Health Officer, officiated at Abbotsford on June 17 when the new Matsqui-Sumas-Abbotsford Health Center was officially opened, and at Golden, a new health center was opened on July 8 by Mr. R. O. Newton, M.L.A. New offices for health unit staffs were occupied at Sooke on May 17 and at Kamloops on May 24.

Staff Changes

Regional dental consultants Dr. Alan Gray and Dr. Dennis Bullen have completed the diploma course in public health at University of Toronto. Dr. Gray has returned to his northern health units post at Prince George. Dr. Bullen returned to his Kootenays appointment at Trail, where he will remain for the summer months pending his permanent appointment as Regional Dental Consultant for Vancouver Island at Nanaimo. Also returned from Toronto is Miss Hilary Castle, at the conclusion of her certificate course in public health. She has resumed her activities with the Division of Public Health Education of the Health Branch, Victoria.

Dr. G. F. Burrows has resigned as assistant director of the Central Vancouver Island Health Unit at Nanaimo.

Miss Dorothea Shields retired on July 31st from her position as public health nursing supervisor of Health Unit No. 1 of the Greater Vancouver Metropolitan Health Committee. Miss Shields thus concluded 39 years' service in public health nursing in Vancouver, and had been in her most recent position since 1946.

Dr. G. P. Evans has been appointed director of the Skeena Health Unit at Prince Rupert. He takes up his new post in August, after serving as assistant director of the neighbouring Cariboo Health Unit.

Miss Freda Hilton, formerly public health nursing supervisor of the East Kootenay Health Unit at Cranbrook, has been

appointed supervisor in the Boundary Health Unit at Cloverdale. She has recently completed the course in public health nursing supervision and administration at the University of Toronto.

Alberta

The C.P.H.A. annual meeting in Regina, Saskatchewan was attended by 31 delegates from Alberta, including eight from the Provincial Department of Public Health and twelve from health units. Other agencies represented included Indian and Northern Health Services, the City of Edmonton Health Department and the University of Alberta.

A new health unit is being established in the Special Areas of Alberta, a sparsely settled region extending from Hanna to the Saskatchewan border. The new health unit, not yet named, will serve a population of nearly 14,000, and will replace the Municipal Nursing Services at New Brigidon, Youngstown and Sunnynook.

Dr. L. W. Mackey, after an absence of several months, has resumed his duties as Medical Officer of Health with the Athabasca Health Unit.

Dr. T. J. Gavriloff of Toronto has been appointed to succeed Dr. W. A. Zacherl as Dental Officer of the Jasper Place Health Unit. Dr. Gavriloff is a graduate of McGill University and obtained his D.D.P.H. from the University of Toronto.

Saskatchewan

At the 52nd annual meeting of the Canadian Public Health Association the Health Education Division of the Saskatchewan Department of Public Health had a display on graphic arts in health education. Preparation of offset copy and layouts, using a Vartypier, Fototype, and an art service, from written copy to intra-office multilith production was demonstrated. Silk screen poster production was also shown. Associated in the display was Addressograph-Multilith of Canada Limited which supplied a Multilith machine, operated by H. R. Rea of its Regina office. Other attendants were Mrs. Margaret Biggart, compositor, and A. J. Medhurst, artist, both of the Health Education Division. Purpose of the display was to indicate how materials may be produced with considerable economy of time and money.

Staff Changes

Mrs. Isabel Barker, formerly regional nutritionist with the Regina Rural Health

Region, has been appointed director of nutrition in the Saskatchewan Department of Public Health.

Dr. Peter N. B. Peacock, who was medical health officer for the Moose Jaw Health Region from 1953 to 1955, will be the health officer for the newly created Saskatoon Rural Health Region. During his Moose Jaw tenure, Dr. Peacock gave impressive services, one of his achievements being the institution of the first rheumatic fever control program in Canada. There are now such projects in other Saskatchewan health regions. The Saskatoon appointment is important because the public health program in the rural health region will be easily accessible to the university medical and nursing schools as a demonstration and training area for students of public health.

Manitoba

More than 500 reporters are involved in the year-long accident survey which got under way on April 1, and is being conducted in four areas of the Province. The number of accident reports which have already been collected would indicate that by the end of the trial period a great deal of information will have been accumulated which will be of assistance in determining the extent of this serious public health problem. The Departments of Agriculture and Health are conducting the survey, and have enlisted the co-operation of local groups in appointing reporters to collect accident data.

The second Institute for Nursing Home Operators, sponsored by the Department, in co-operation with the Brandon Health Unit, was held in Brandon during June, with a registration of 38. The program featured discussions on many aspects of the operation of nursing homes, including nursing care of the bed-ridden guest; problems of the elderly as seen by the social worker; management of the elderly guest; rehabilitation; special responsibilities of management; food sanitation; community involvement, diversional activities.

Chairman of the Institute was Dr. M. Kozakiewicz, Medical Director of the Brandon Health Unit, and those participating included: H. Malcolmson, M.D., Director of Alternative Care; Walter Boyd, Provincial Co-ordinator of Rehabilitation; Miss Mary Wilson, Educational Director, Public Health Nursing; E. R. Rafuse, M.D.; Grant McLeod, Director of Food Control; and Shirley Munro, Occupational Therapist with the Canadian Arthritis and Rheumatism Society.

During the months of May and June, a total of 135 Licensed Practical Nurses were graduated from the Central School, and the St. Boniface Hospital. During the colourful graduation ceremonies, greetings from the Province were brought by the Hon. George Johnson, Minister of Health and Public Welfare, and Dr. M. R. Elliott, Deputy Minister. At both ceremonies, the pins were presented to graduates by the Registrar Consultant for Licensed Practical Nurses, Miss W. M. Barratt.

Staff Changes

A graduate of the Royal College of Surgeons, Dublin, Ireland, Dr. J. M. Wright, has been appointed Medical Director of the Northern Health Unit at Flin Flon.

Ontario

Dr. R. G. Birrell, medical director of Imperial Oil Limited, recently retired to take up a position as assistant medical director of the Alcoholism Research Foundation in Toronto. Dr. Birrell is past chairman of the Section of Occupational Medicine of the Ontario Medical Association and a former director of the Industrial Medical Association.

PSI Community Health Plan

Physicians' Services Inc., as a result of the success of its plan in Orangeville, plans to make available its Community Health Plan to other towns in Ontario. Under the plan, individuals, on a community basis, will receive the same benefits as subscribers to the group plans in industry. PSI, which is sponsored by the Ontario Medical Association, is already serving more than 1,250,000 persons through group plans in industry and is broadening its service to meet the growing demands for individual enrolment.

In the move to meet those demands, PSI designed and developed the Community Health Plan and made it available first to the town of Orangeville as an experiment. Subscriptions to the plan far exceeded expectations and, as a result, PSI will be able to continue this type of enrolment.

The key to the success of this plan in any community is the co-operation of civic and business leaders, hospitals, and doctors. This co-operation was fully received in Orangeville and will be looked for in launching the plan in other centers across the province.

A Special Recognition Award has been made by the Canadian Mental Health Association to Miss Lillian Oliver who has

headed the department of social work at the Ontario Hospital, New Toronto, since 1934. She instituted and has since supervised the program of approved homes beyond the hospital grounds which accommodates 300 mental patients and which through the years has been a stepping stone back to community living for uncounted numbers. This has demanded her untiring vigilance and unlimited hours of work.

The unrestrained devotion of the hostesses of her approved homes, the recognition of her authority in psychiatric social work by the University of Toronto and social work profession, have attested to the reasons why Miss Oliver is so widely respected and loved throughout the province.

Miss Mary Tero, R.N., who has been on the staff of the Ontario Hospital, Kingston since 1944 has been awarded the Marjorie Hiscott Keyes White Cross Medal by the Canadian Mental Health Association. Miss Tero has demonstrated unusual spirit and special talent for the care of helpless patients. Through her enthusiasm and dedicated nature all hospital employees in contact with her become inspired to serve patients in the same way. As a consequence the depressing atmosphere usually found in wards for the severely retarded is totally absent in Miss Tero's section. Her interest in the patients, her co-operation and loyalty, have established an ideal in psychiatric nursing standards for personnel in all sections of the hospital.

New Brunswick

The appointment of A. Emerson Wilby to the position of Registrar General of Vital Statistics with the New Brunswick Department of Health was announced recently by Health Minister, Dr. Georges L. Dumont. During the last 15 years, Mr. Wilby has been Assistant Registrar General under Dr. J. A. Melanson, Chief Medical Officer, whose responsibilities have included those of Registrar General. In his new appointment Mr. Wilby will continue to work on the same basis under the direction of the Chief Medical Officer.

Nova Scotia

Staff Changes

The following nurses have joined district offices of the Department of Health: Miss Dorothy Colp, Yarmouth; Miss Reta Crocker, Shubenacadie; Miss Lily Harris, Barrington Passage; Miss Joyce Starratt, Little Brook; Miss Minnie MacNabb, Pictou; Miss Jessie MacLeod, Mulgrave; Miss

Frances LeBrun, Arichat; Miss Loretta Madden, New Glasgow; Mrs. Mary Clark, Armdale; Miss Kathleen Smith, Kennetcook.

Miss Phyllis Knowles, Mrs. Edna Cunningham, and Miss Ruby Allan have resigned from their respective districts of Dartmouth, Armdale, and Bedford.

Miss Lois Robertson has returned from the University of Toronto where she was taking the advanced course in public health nursing and administration. Miss Robertson is presently relieving Miss Ann Buffet, Supervisor of Nurses for the Cape Breton South Health Unit.

Prince Edward Island

On May 31, 1961 the New Brunswick-Prince Edward Island Branch of the Canadian Thoracic Society held a scientific meeting at the Charlottetown Hospital. This meeting was held one day prior to the annual meeting of the New Brunswick-Prince Edward Island Branch of the C.P.H.A.

The Canadian Thoracic Society is the medical section of the Canadian Tuberculosis Association and is an affiliate society of the Canadian Medical Association. During the past two years the Canadian Thoracic Society has expanded its interests to include not only tuberculosis but also allied and contributing diseases.

Dr. E. M. Found, Director of the Division of Tuberculosis Control, has reported that minor outbreaks of tuberculosis on Prince Edward Island are presenting problems.

Following the discovery of a 52-year-old adult patient by a hospital admission X-ray, tuberculin testing of 39 contacts was carried out by the public health nurse in the Kin-kora area with the result that 12 positive reactors were discovered, three of whom had demonstrable radiological shadows and have been admitted to the sanatorium for treatment.

Following the discovery of an open active case in the Montague High School in June 1960, a follow-up tuberculin testing program was carried out in October 1960 and again in May 1961. In May 1961, two young people (aged 16 and 17) were discovered as having active minimal tuberculosis and were admitted to the sanatorium. During 1960 eight children under the age of 13 were discovered in two highly tuberculinized areas. At present, a third of the population under treatment at the sanatorium in Charlottetown is under the age of 13.

Staff Changes

Dr. Brian O'Brien and Dr. Y. Kumasaka have been appointed to the psychiatric staff of the Department and commenced their duties on July 1.

JAMES JOSEPH McCANN, M.D.

In the death of Dr. James J. McCann on April 11, the Canadian Public Health Association lost a long-time friend and supporter. Dr. McCann was president of the Association in 1939 and he had also served as president of the Ontario Health Officers Association. He was medical officer of health for Renfrew, Ontario for thirty years. He gave much time to the responsibilities of this office, although he was engaged in a very large practice. He was elected to Parliament in 1935 repre-

senting North Renfrew, holding the seat as a Liberal member in four elections. He held the Cabinet posts of Minister of National War Services and Minister of National Revenue in the Liberal administrations of the late McKenzie King and Louis St. Laurent. In his political career, Dr. McCann was a strong advocate of government policies in health and welfare. Dr. McCann is survived by his widow.

Books and Reports

ATOMIC ENERGY WASTE: Its Nature, Use and Disposal. Edited by E. Glueckauf. Butterworth & Co. (Canada) Ltd., Toronto. 1961, 420 pp., \$14.00.

The increasing output of radioactive waste presents problems of adequate and safe disposal. This book was written by a number of different contributors each of whom is an authority on the specific subject he has undertaken to report. The volume is in the nature of a research report and deals extensively with the great increase in our knowledge of radioactive waste products and how they arise, of their chemical processing, and of the effects of their radiations on materials and living organisms.

The book also contains important sections on operations involved in the treatment of radioactive wastes, fission products as sources of radiation, and uses of radiation in research and agriculture. The section on legal aspects of atomic energy waste disposal covers legislation in the United States, Great Britain, and other countries.

This publication is of great interest to the health physicist and others who are concerned with the public health aspects of atomic waste disposal.

IONIZING RADIATION AND HEALTH.
Bo Lindell and R. Lowry Dobson. World Health Organization, Public Health Papers No. 6, Queen's Printer, Ottawa. 1961, 81 pp., \$1.00.

In January 1960 the Executive Board of the World Health Organization requested that a study be made of the hazards of radiation to health and measures for their prevention. *Ionizing Radiation and Health* contains the report of this study which was submitted to the Thirteenth World Health Assembly as background material for its discussions on radiation hazards. It contains four main sections, Biological Effects of Ionizing Radiation, Interpretation of Physical Exposure Levels, Current Radiation Protection Work, and Present Radiation Pattern

as Described in Physical Terms. The book also includes material on physical data for some naturally occurring and artificially produced radioactive nuclides and some pertinent statements and recommendations on radiation protection measures in medical radiology.

Although this book has only 81 pages the material contained therein is presented in a highly condensed form which greatly increases its value as an immediately useful source of recent background information on the health aspects of ionizing radiation.

BASIC NURSING EDUCATION PROGRAMMES. A Guide to their Planning.
Katharine Lyman. World Health Organization, Public Health Papers No. 7, Queen's Printer, Ottawa. 1961, 81 pp., \$1.00.

The demand for qualified nurses is expanding and new nursing responsibilities are appearing which necessitate changes in the content and methods of nursing education and an increase in educational facilities. Many countries are feeling the need to reassess and expand existing programs and to add new ones; many are creating nursing education programs and facilities for the first time.

This study was prepared in answer to requests for guidance in organizing and reorganizing programs for the basic education of nurses. The material is in two sections. The first outlines the kinds of general and specific information about a community and an individual school upon which planning for nursing education is based, and suggests methods for collecting this information; the second part suggests steps for developing a nursing education program.

Although this book is largely directed to those countries where nursing education is developing and where international nursing advisers are assisting local nurses to plan for the future, it has a much wider appeal and should be of interest to all those concerned with nursing education.

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